TO THE HONORABLE PRESIDENT OF THE SOLE PROVINCIAL COURT 0F JUSTICE OF SUCUMBIOS:

Pablo Fajardo Mendoza – In my capacity as Legal Representative for Maria Aguinda and others, in suit No. 02-2003, which because of environmental damage is being pursued in this judiciary against Chevron Corporation, previously Texaco, I appear and present before you the second part of the legal report, authorized under the provisions of the law that apply for this phase of the suit and that were mentioned in your ruling of December 17, 2010.

This is a simple case supported by scientific evidence. It is essentially based on thousands of sampling results taken at hundreds of former Texaco drilling sites that unequivocally reveal the presence of dangerous toxins in the soil and in the water. It is also about Texaco's adoption of woefully substandard processes leading to the deliberate release of those toxins into the environment, where they remain today – practices designed to maximize profit at the expense of the environment and the public health in Ecuador. Chevron has tried to twist this case, diverting the attention of the public and of this Court towards anything and everything *other* than these core issues, resulting in a record exceeding 180,000 pages largely comprised of nothing more than "noise" intended to distract you, Sr. Presidente, from what really matters. Throughout the present legal report, we will cut through the noise, and focus on those issues that lie at the very heart of this case: Texaco's deliberate misconduct, the environmental contamination resulting from that misconduct, and the legal basis for Chevron's liability for the damages.

In the coming weeks, we, the Plaintiffs, will present additional filings from the Plaintiffs, which, taken together with the present document, shall constitute the entirety of Plaintiffs' account containing our final positions within this judicial proceedings We hope that the following legal report upon being submitted will focus principally the damages at issue in this case, and will present the Court with a summary of our position on the appropriate economic evaluation of those damages. Subsequently, a final legal report will be submitted where we will address Chevron's numerous and diverse attempts to sabotage this litigation from the outset, including Chevron's increasingly desperate and inflammatory filings accusing the Plaintiffs – and indeed this Court itself – of fraud and misconduct.

TABLE OF CONTENTS

I. INTRODUCTION

From 1964 to 1992, Chevron Corporation's ("Chevron") predecessor, Texaco Inc. ("Texaco")[1], owned an interest in an approximately 2,500 square-mile concession in Ecuador that contained more than 350 well sites. This concession was operated between 1964 and June 1990 exclusively by Texaco Petroleum Company ("Texpet", a subsidiary of Texaco, whose decisions and operations were fully dependent on its parent company. When Texpet had completed its role as operator of the concession area, it had spilled deliberately and consciously many billions of gallons of waste byproducts of oil drilling directly into rivers and streams in the Ecuadorian Amazon. The company gouged more than 900 unlined waste pits out of the jungle floor – pits which to this day leach toxic waste into soils and groundwater. It burned hundreds of millions of cubic feet of gas and waste oil into the atmosphere, poisoning the air and creating "black rain" which inundated the area during thunderstorms. Texaco's substandard practices violated Ecuadorian law, fell well short of industry custom, constituted a breach of Texaco's operation contract, and violated the company's legal duty to exercise due care in its activities in Ecuador. The company's crime in Ecuador is three-fold: it came to Ecuador with the intention to pollute as a means of saving money; it conducted a fraudulent remediation as a means of evading liability as it pulled out of the country; and it has spent the better part of the past two decades attempting to cover up its misdeeds using junk science, obfuscation, and intimidation of experts, lawyers, and judges alike.

The evidence against Chevron is overwhelming and unassailable. Any visitor to the region can see the evidence in striking terms: old Texaco barrels mired in hundreds of giant, unlined, open-air pits of oily sludge that leach their contents via overflow pipes built by the oil company into nearby streams and rivers. Evidence demonstrates that the company never conducted a single environmental impact study or health evaluation in the decades it operated in the Amazon, even though thousands of people lived in and around its oil production facilities and relied on rivers and streams that the company used to discharge toxic waste. Hundreds of waste

[1] This document will refer to Texaco Inc. as "Texaco" or "Chevron," depending on the time period discussed. As documented in Section IV.B, Chevron in 2003 merged with Texaco and, in so doing, acquired all liability for the company's historic misconduct. Therefore, any reference to Texaco is made only for the sake of clarity.

Similarly, since Texaco Inc. operated in Ecuador for all legal purposes as the Texas Petroleum Company ("Texpet"), the latter being merely an executive arm for the decisions of the former, we will simply use the term "Texaco" throughout this document when commenting on the operations at the Napo Concession, except in the limited instances in which it may be necessary to use the term "Texpet" for reasons of clarity. The intimate relationship between these apparently distinct companies is explained in detail in section IV A of this document.

pits left by Texpet have been tested extensively by experts hired by Chevron and the plaintiffs, and by various third party scientists, revealing levels of total petroleum hydrocarbons and heavy metals hundreds and sometimes thousands of times higher than allowable norms in Ecuador and the U.S. Chevron's own documents prove that, as the Amazon communities have long alleged, Texaco never re-injected or safely disposed of "produced water," and instead dumped it into surrounding streams and rivers which local residents still use for drinking, cooking, and bathing. The company also engaged in outright fraud: a 1972 memo from Texaco's head of Latin American production issued a blunt directive to the company's acting manager in Ecuador to destroy previous reports of oil spills and to forego documenting future spills in writing unless they were already known to the press or regulatory authorities, and, incredibly, not to produce any new reports that met these criteria.

Notwithstanding the fact that Chevron has rounded up its usual cadre of experts to whom it has paid enormous sums of money in the past, and paid them large sums of money once again to sow the seeds of doubt about the science in this case, the numbers do not lie. Some of the most respected scientists from all over the world – people in no way affiliated with the Plaintiffs and with no "horse in the race" – have been studying and writing about the environmental and health crisis in the Oriente region since long before this case was filed. Confronted with this body of evidence and the great weight of the worldwide scientific community against it, the refusal of Chevron and its team of experts to admit that Chevron could *ever* be responsible for *any* damage evinces a shocking lack of judgment and credibility. Indeed, TPH several multiples higher than tolerable levels was found by Chevron's *own* technical experts at well sites where Petroecuador never operated, and which Chevron claimed were "completely remediated" in the mid-1990s. What credible excuse can Chevron conjure for that? It cannot blame the Plaintiffs. It cannot blame Petroecuador. There is no way out for Chevron, other than to attack the Plaintiffs and the Court by any means other than engaging on the merits. Predictably, the attacks of Chevron were numerous and brutal in quality.

When it became clear that the evidence against Chevron was building, a Chevron spokesman announced to the *Wall Street Journal*: "We're not paying and we're going to fight this for years if not decades into the future."[2] The company put out a press release promising the plaintiffs a "lifetime of litigation" if they persisted.[3] Chevron's General Counsel said he expected

[2] Ben Casselman, *Chevron Expects to Fight Ecuador Lawsuit in U.S.*, Wall St. J., July 20, 2009, B3, available at: http://online.wsj.com/article/SB124804873580263085.html

[3] *Refer to Boletín de Prensa:* Chevron Calls for Dismissal of Ecuador Lawsuit, Oct. 8, 2007, *Available at:* http://www.chevron.com/chevron/pressreleases/article/10082007_chevroncallsfordismissalofecuadorlawsuit.news.

to lose the case, but vowed that Chevron would "fight until hell freezes over and then fight it out on the ice."[4] These statements clearly contradicted Chevron's earlier promises to abide by a judgment in Ecuador's courts – promises it made to the American courts in order to secure a *forum non conveniens* (lack of jurisdiction) dismissal of a previously filed class action there. Throughout the course of the trial, it became clear that Chevron intended to play by a new set of rules. Chevron seeks not only to quash this case, but also to destroy very idea that indigenous communities can empower themselves to vindicate their legal rights. In a startling moment of candor, a Chevron lobbyist interviewed about the lawsuit admitted to *Newsweek* magazine: "We can't let little countries screw around with big companies like this – companies that have made big investments around the world."[5]

As this case nears its conclusion, Chevron has made good on its threats. Chevron's attacks on the Plaintiffs and on this Court itself have grown increasingly feverish and vitriolic over the past weeks and months. Chevron has bombarded this Court with motion after motion even making wild accusations that the Plaintiffs' claims are born not of a desire to live free of Chevron's toxins but instead of "madness" and "perversion."[6] Chevron regularly demands outright dismissal of the case for any and all reasons it can manufacture, however insignificant Indeed, Chevron's many motions to dismiss this case now center on a threat to the Court according to which Your Honor must do what Chevron demands or face ***criminal liability***.[7] Chevron's tack is an obvious one: the more absurd motions it files that are not granted, the greater opportunity for the company to cast this Court as biased and incompetent in a subsequent enforcement proceeding.

In the ultimate insult to indigenous peoples, Chevron has even gone so far as to suggest to courts in the United States and even to this Court that the Plaintiffs are ***not real*** – the mere figment of unscrupulous lawyers' collective imaginations. But despite Chevron's efforts to wish them away – the plaintiffs *are* real. They are as real as Chevron's decimation of the rainforest on which these people rely for ***every facet of their existence*** – from their drinking water to their very culture and way of life. They are as real as the specter of disease that looms over the affected communities every day, while a litany of illnesses in their majority unknown to this region – continue to proliferate through the population at an alarming rate. The Plaintiffs are indeed very

---

4 John Otis, *Chevron vs. Ecuadorean Activists*, The Global Post, May 3, 2009, *available at:* http://www.globalpost.com/dispatch/the-americas/090429/chevron-ecuador?page=0,2#.

5 "A $16 Billion Problem: Chevron hires lobbyists to squeeze Ecuador in toxic-dumping case. What Obama win could mean," by Michael Isikoff in NEWSWEEK (Aug. 4, 2008).

6 Written by Chevron, December 22, 2010, 17 hr 48 m, pg 20.

7 Written by Chevron, December 22, 2010, 17 hr 48 m, pg 8.

real, and much to Chevron's chagrin, intimidation has not made them disappear. Chevron miscalculated – the company's belief that it could simply outlast the indigenous people of the Oriente and drain them of their will to persevere has failed.

Incredibly, Chevron claims that it is being denied due process in this case, while it is the affected communities who have been forced to wait ***seventeen years*** for justice, thanks to the dangerous combination that is Chevron's limitless appetite for litigation and its utter disregard for candor and for the rule of law. Indeed, in the face of Chevron's relentless efforts to assure that this day never came, it is nothing short of a miracle that the case now stands on the precipice of judgment. The time for Chevron's excuses, its finger-pointing, its international side-shows, and its extra-judicial mischief is over – this case will now be judged on the merits, as it should be. And as will be made plain herein, there is a very good reason Chevron has moved heaven and earth to ***avoid*** a decision on the merits, even at the expense of the company's international reputation. When we strip away the artifice and focus instead on what matters – what exactly is in the ground and water and who put it there – Chevron simply cannot prevail.

II. STATEMENT OF RELEVANT FACTS: TEXACO'S MISCONDUCT AND THE RESULTING CONTAMINATION

A. Texaco Cuts Corners in Ecuador to Maximize Profit

As a means of saving money at the expense of the environment and the public health, Texaco made a conscious, deliberate decision to use antiquated practices and technology in Ecuador, which has resulted in massive environmental destruction and human catastrophe. This destruction includes widespread contamination of surface waters and groundwater on which indigenous groups have relied for millennia for their sustenance, and an epidemic of cancers and other oil-related medical problems that have devastated the local population.

1. Texaco's Procedures in Ecuador: Grossly Inadequate by Any Measure

By the time Texaco began operating in the Napo Concession in 1964, the oil industry was well aware of the environmental consequences of improper management of its waste streams and had designed and put in place standard practices designed to prevent harm. These standard practices to prevent or minimize pollution began in the 1910s and 1920s, and by the 1960s they were detailed and specific. Texaco was itself an integral part of the development of standard practices in the industry. Texaco was part of the American Petroleum Institute ("API"), a professional organization funded by the petroleum industry that reflects the industry's viewpoints and practices – documents produced by the API represent the entire industry and its standard practice. Further, representatives from Texaco authored chapters in authoritative industry practice guides on proper practices for proper disposal of produced water.

Nonetheless, Texaco operated the Concession from 1964 to 1990 in a manner that violated decades of industry knowledge and consensus guidelines and that was far less environmentally protective than its operations in the United States.[8] While operating the Napo Concession, Texaco gave absolutely no consideration to environmental monitoring or the prevention of pollution. Texaco failed to plan for spills, failed to design and maintain its facilities and equipment to prevent spills and other releases to the environment, and failed to clean up after itself. Further, Texaco deliberately disposed of untreated contaminated produced water and other waste into the environment. These lax operational practices resulted, among other things, in the large-scale environmental impacts to natural resources that persist in the Napo Concession today.

[8] Cuerpo 943, Foja 103329: "Texaco's Waste Management Practices in Ecuador Were Illegal and Violated Industry Standards," by Bill Powers and Mark Quarles (April 5, 2006).

Below, we summarize Texaco's practices in Ecuador in view of historical industry knowledge and custom, with respect to several facets of drilling and oil waste management: produced water, pits, spills, handling of produced gas, and drilling muds.[9]

(a) *Dumping of Produced Water*

The oil industry has known since at least the 1920s and 1930s that produced water[10] is harmful to the environment and to people[11], and that it should not be dumped into rivers, streams, or surface ponds.[12] Deep underground injection has been a standard industry practice for produced water disposal in the United States since the 1940s[13], nearly 30 years before Texaco began producing oil in the Oriente. In fact, there is an example from the late 1950s and early 1960s showing that Texaco itself was required to meet environmental requirements for the disposal of produced water in California.[14]

Indeed, in the second edition of the book "Principles of Oil and Gas Production - Book 1 from the series of Vocational Training"[15] published by the American Petroleum Institute in 1962 (before Texaco began its operations in Ecuador), there is a chapter entitled "Special Problems" **authored at least in part by a Texaco technician**,[16] which states:

---

[9] In demonstrating that Chevron was woefully negligent because the company's practices in Ecuador fell far short of the industry custom, the company adhered to in the United States, we place a particular emphasis on the major U.S. oil-producing states of Louisiana, Texas, and California – Chevron was intimately familiar with the standards in effect in these states during the time the company operated in the Napo Concession.

[10] Produced water is water that occurs underground with the oil and rises to the surface in oil wells along with the oil and with natural gas and has to be separated from the oil before the oil [is separated]. Produced water typically contains metals, chlorides, and other chemicals that leach out of the underground rock formations where the oil occurs, chemicals that are injected down into wells to enhance well production, and petroleum compounds such as benzene that leach out of the oil into the production water. *See* "A White Paper Describing Produced Water from Production of Crude Oil, Natural Gas, and Coal Bed Methane" Prepared by Argonne National Laboratory for the U.S. Department of Energy National Energy Technology Laboratory under Contract W.31-109-Eng-38. 2004.

[11] "The Disposal of Oil Field Brines" by L Schmidt and J. Devine of the U.S. Department of the Interior, Bureau of Mines (June 2009).

[12] "Surface Waste Management Manual, Chapter II – Statewide Rule 8 History" by the Railroad Commission of Texas (2008). Available at http://www.rrc.state.tx.us/forms/publications/SurfaceWasteManagementManual/chapter2.php

[13] "Drilling and Production Practice" published by the Central Committee on Drilling and Production Practice of the API (1942); "Survey of Subsurface Brine-Disposal System in Western Kansas Oil Fields" by P. Grandone and L. Schmidt of the U.S. Department of Interior, U.S. Bureau of Mines (August 1943).

[14] Cuerpo 943, Foja 103332: Powers and Quarles (2006)

[15] Cuerpo 1489, Fojas 158755 to 158834: "*Principles of Oil and Gas Production -Book 1 from the series of Vocational Training*" from the American Petroleum Institute, second edition, 1962, New York. (Page. 56 – Chapter "Special Problems").

[16] Cuerpo 1489, Foja 158770: "*Principles of Oil and Gas Production*," API (1962) at 2 ("[…] Special Recognition to K.C. Ten Brink, Texaco Inc., for its cooperation in the chapter about "Special Problems.")

> The management and disposal of produced water requires extreme caution, not only due to the possible damage to agriculture, but also to the possibility of polluting lakes and rivers that provide water for human consumption as well as for irrigation.[17]

Furthermore, during the relevant time period, Texaco held patents, which demonstrate that the company had access to appropriate re-injection technology – technology Texaco failed to use in Ecuador even though the dangers of not doing so were known. To wit, on March 29, 1972 Texaco applied for a patent in United States for an "invention that belongs to the field of underground disposal of liquid waste,"[18] or, in other words, an improved re-injection method. The patent, which was obtained on June 18, 1974, states that the effluent of the oil industry should be disposed of, but:

> [D]oing so in or close to the ground surface may cause considerable contamination problems. Furthermore, the treatment of those fluids in such way that they can be legally and harmlessly discharged into streams of sources of water is, in most of the cases, excessively expensive.
>
> * * *
>
> [A] solution is to inject these fluids inside the underground formations whose geologic characteristics prevent the possibility of contact with the surface or underground fresh water formations.[19]

It is clear that Texaco knew the environmental risks and hazards for surface water of discharging produced water and that Texaco indeed possessed a method for re-injection of that water instead of dumping it. Nonetheless, and in contrast to standard practice at the time, Texaco clearly failed to properly handle its produced water in the Oriente. Although Texaco was fully aware that it should be re-injecting produced water, Texaco discharged 15,834 million gallons of this dangerous substance between 1972 and 1990 into small streams and soils near its stations and well sites[20]. Before produced water was discharged to surface water, Texaco stored the produced water in unlined earthen pits that leaked and overflowed to groundwater and surface water,[21] further extending the areas contaminated by the produced water. At each of its processing stations, Texaco built large pipes that drained directly into

[17] Cuerpo 1489, Foja 158811: "*Principles of Oil and Gas Production*," API (1962).

[18] Cuerpo 952, Foja, 104363: U.S. Patent Office 3.817.859 (June 18, 1974).

[19] Cuerpo 952, Foja, 104363: (U.S. Patent Office 1974).

[20] Cuerpo, 1307, Foja 140601: Letter from Rodrigo Pérez Pallares (Representative of TexPet) to Director of Vistazo Magazine (March 16, 2007).

[21] Cuerpo 97, Foja 10676: last paragraph, Final Environmental Field Audit for Practices 1964-1990, Petroecuador Texaco Consortium prepared by Fugro-McClelland West for Texaco Petroleum Company (October 1992); Cuerpo 98, Foja 10816: Environmental Assessment of the Petroecuador-Texaco Consortium Oil Field, Vol. 1 - Environmental Audit Report (HBT AGRA, Oct. 1993).

nearby streams and rivers.[22] After separating the produced water from the oil in large pits, they simply dumped the produced water through these pipes into the rainforest.[23] The water did not receive any kind of analysis or treatment before dumping.[24] This open dumping of produced water was cheaper for Texaco than building and maintaining injection wells, and Texaco chose this cheaper option even though the practice of open dumping of produced water was stopped in the United States many decades earlier because of pollution problems.

Texaco was still dumping produced water directly into streams and rivers in Ecuador ***over 70 years*** after the oil and gas industry collectively no longer considered the practice acceptable in the United States. In stark contrast, Petroecuador began installing injection wells after it took over operation of the field, and now re-injects nearly all of its produced water.[25]

(b) *Unlined, Permanent Pits*

The oil industry has known since the early 1930s that unlined pits leak and are a major source of pollution in the oil industry.[26] By the time Texaco operated in Ecuador, the use of pits was mostly limited to temporary emergency storage; pits needed to be designed to prevent leaks and spills, and oil was not to be left in them.[27] In 1969, Texaco's home state of Texas completely prohibited the use of earthen pits to store oil, byproducts, and wastes, and by 1970, most U.S. States required that pits be lined subject to permit.[28] In fact, once again, in the 1962 publication "Principles of Oil and Gas Production - Book 1 From The Series Of Vocational Training," the chapter entitled "Special Problems" and **authored at least in part by a Texaco technician** states:

> In dry climates, the water separated from oil or gas may be frequently located in huge pits that allow its evaporation. Depending on the surface and subsoil conditions, this method may be harmful due to possible leaking to nearby sources of fresh water, pastures and agricultural lands.[29]

Whereas standard practice was to use lined pits of sufficient capacity only for temporary storage, in Ecuador, Texaco permanently left oil and other waste in unlined pits

---

[22] Cuerpo 98, Foja 10812: HBT AGRA (1993).

[23] Cuerpo 98, Foja 10812: HBT AGRA (1993).

[24] Cuerpo 97, Foja 10684 - Opposite side of Foja 10686: Fugro-McClelland (1992).

[25] "Ecuador Production Waters," Eng. Fernando Reyes, September 2007, p.22, Table 8. Appendix A to Annex S of Report of Court Appointed Expert Cabrera Vega, (March 2008). Foja 139938.

[26] "*Disposal of Production Wastes,"* Presented at Panhandler Chapter Meeting of Division of Production by V.L Martin, chairperson of API Committee on Disposal of Production Wastes (April 12, 1932).

[27] Cuerpo 1489, Foja 158770: "*Principles of Oil and Gas Production*," API (1962); "Recommended Onshore Production Operating Practices for Protection of the Environment" API (1974).

[28] "*Ground Water Pollution in the South Central States*," U.S. EPA (June 1973).

[29] Cuerpo 1489, Foja 158811: "*Principles of Oil and Gas Production*," API (1962).

that leaked into the surrounding environment. Specifically, Texaco built and abandoned upwards of 900 open, unlined, earthen pits full of toxic mud in the Oriente, and these contained hazardous chemicals such as chrome VI, barium, and lead, among others. Texaco used unlined pits of intentionally insufficient capacity.[30] These pits, mere shallow holes dug in the soil, were typically and intentionally placed adjacent to streams or drainage channels.[31] For decades they were full of rainwater and wastes and these pits have been leaking carcinogenic toxins into the ground water, the soil, and the streams used by the population for drinking water.[32] HBT AGRA (1993) found that Texaco conducted little maintenance on any of the pits at the well sites, leading to their deterioration and leaking.[33]

Texaco used these pits as permanent waste disposal dumps for oil, drilling mud and other waste rather than as temporary emergency storage areas. The Fugro-McClelland (1992) auditors reported that "reserve" pits were used for the collection and permanent disposal of drilling muds and cuttings,[34] which contravenes the standard practice in the United States. HBT AGRA (1993) reported that drilling muds containing lithium sulfur and other heavy metals and completion wastes, salts, and oil were also discharged into the unlined pits. Further, Texaco did not properly close these pits after use, but either left them open or, in some cases, placed a thin layer of dirt over the top of them.[35]

Texaco also built unlined, poorly designed pits at the central production stations to separate the huge volumes of oil and production water that came from the wells and to store the production water before dumping it into nearby streams and rivers. Nine of the 18 Texaco production facilities audited by Fugro-McClelland (1992) had pits that discharged their content directly into surface waters that were over 95% full of crude oil.[36] Evidence of petroleum releases from such pits into surface drainage was observed at Aguarico, Cononaco, Sacha Central, Sacha Norte, and Yuca.[37] The drainage channels at Sacha Central and Yuca were heavily contaminated and contained free-standing crude oil which was barely degraded.

The results of sampling conducted during the audits and for this trial clearly show that Texaco never removed the oil and other waste that it dumped in these pits. Texaco's own audit of its practices, which was conducted after 1990, found that Texaco's pits were

---

[30] Cuerpo 97, Foja 10676, final environmental field audit on practices, 1964-1990, Petroecuador Texaco Consortium prepared by Fugro-McClelland West for Texaco Petroleum Company (October 1992); Cuerpo 98, Foja 10816: Environmental evaluation of the Petroecuador – Texaco Consortium's oil field, Vol. 1 – Report on the environmental audit (HBT AGRA, October 1993).

[31] Cuerpo 97, Foja 10676, final environmental field audit on practices, 1964-1990, Petroecuador Texaco Consortium prepared by Fugro-McClelland West for Texaco Petroleum Company (October 1992); Cuerpo 98, Foja 10816: Environmental evaluation of the Petroecuador – Texaco Consortium's oil field, Vol. 1 – Report on the environmental audit (HBT AGRA, October 1993).

[32] Cuerpo 98, Foja 10784- Cuerpo 99, Foja: 11011: HBT AGRA (1993)

[33] Cuerpo 98, Opposite Foja 10817: HBT AGRA (1993).

[34] Cuerpo 97, Foja 10687, Last Para.: Fugro-McClelland (1992).

[35] Cuerpo 98, Foja 10804: HBT AGRA (1993).

[36] Cuerpo 97, Foja 10684, 2nd Para., Fugro-McClelland (1992).

[37] Cuerpo 97, Foja 10684, 2nd Para., Fugro-McClelland (1992).

potential contaminant sources and posed compliance issues related to Ecuadorian law.[38] During their audit, HBT AGRA (1993) found pits that contained oily waste at 125 of the 162 well sites they assessed. Oily waste was present at all 80 of the pits at the 22 stations they audited.[39] The audit by Fugro-McClelland (1992) found hydrocarbon contamination requiring remediation at all production facilities and at a majority of the drill sites.[40] Contamination beyond the pits, usually as a result of pit overflow, berm failure or releases through siphons, was also observed in some areas.[41]

[38] Cuerpo 98, Foja 10805 (reverse), last paragraph: HBT AGRA (1993).

[39] Cuerpo 89, Foja 10834-10837: HBT AGRA (1993).

[40] Cuerpo 97, Opposite Foja 10705-Foja 10708. Table 6-3., Fugro-McClelland (1992).

[41] Cuerpo 97, Opposite Foja 10681, last paragraph. Fugro McClelland (1992).

(c) *Spills*

At the time that Texaco operated in Ecuador, spills and dumping of oil and other contaminants were unacceptable in the industry. Standard practice was to prevent spills through good planning, appropriate design of pits and equipment, and proper maintenance of that equipment.[42] Proper spill response plans were to be in place and operators were to know how to quickly control, contain and clean up any accidental spills, and restore the area to its previous condition.[43] The API (1974) recommended the development of training programs on discharge prevention and contingency/shut-down plans to minimize the potential for oil discharges or incidents causing pollution or other environmental damage.[44] The API (1972) also indicated that groundwater inspection, using monitoring wells, were required if groundwater were likely to have been affected by spills.[45]

Notwithstanding the relative paucity of evidence related to spills resulting from Texaco's destruction of evidence (*See* Section II(A)(2), *infra*), the existing evidence reveals quite clearly that Texaco did not prevent, control, or properly remediate spills. Texaco failed to plan for handling spills, and did not use efficient practices in the design and maintenance of its equipment, which led to many unnecessary spills. Likewise, the company did not quickly clean up the spills that it had caused.

Almost no pollution prevention measures were in place in the Concession prior to 1990. In their audits, neither Fugro-McClelland (1992) nor HBT AGRA (1993) identified an oil spill prevention and control plan or spill control and containment equipment.[46] HBT AGRA (1993) found that no spill prevention methods or waste reduction or pollution prevention plans were in place prior to 1990.[47] Environmental impact studies (EIS's) were first mandated in 1976 under the Law on Prevention and Control of Environmental Pollution.[48] Under this law, environmental studies and measures of controlling impacts were required for industrial projects that might result in an alteration of the ecological system and impact air quality. Despite this requirement, Texaco did not prepare a single EIS for any of the exploratory drilling they conducted, including

[42] API (1974).

[43] API (1974).

[44] API (1974).

[45] "The Migration of Petroleum Products in Soil and Ground Water: Principles and Countermeasures," API (1972).

[46] Cuerpo 98, Foja 10815 (opposite side) – 18016: HBT AGRA (1993); Cuerpo 97, Foja 10670, 1st Paragraph, opposite side. Fugro McClelland, 1992.

[47] Cuerpo 98, Foja 10815 (opposite side) – 18016: HBT AGRA (1993).

[48] Cuerpo 97, Foja 10672, 3rd Paragraph. Fugro McClelland (1992).

the drilling conducted after the Decree requiring EISs was put into law.[49] HBT AGRA (1993) also found that there were no environmental management personnel in the entire Concession.[50]

Texaco also did not design its well and station facilities in a manner that would contain or prevent spills. The Fugro-McClelland (1992) audit documented that Texaco built berms around crude oil tanks that were too small to contain oil spilled from the tanks, which is what the berms supposedly must do. Several of the tank berms did not have appropriate drains or the drains did not have valves.[51] Texaco's vehicle fueling stations at Auca, Coca, Sacha and Shushufindi were located over gravel, so that any spills during refueling would result in soil contamination.[52] In fact, contaminated soil was evident below all of the fill ports on the fuel storage tanks.[53] Texaco also allowed liquids in flare lines to drain onto the ground or into pits. A horizontal flare at the Shushufindi North station actually leaked crude into a wetland.[54]

Moreover, Texaco failed to properly monitor its equipment. For example, Fugro-McClelland (1992) found no indication of a pipeline monitoring program.[55] Because of this, Texaco's poorly maintained pipelines were a source of many spills. Fugro-McClelland (1992) observed evidence of leaks from pipelines at 11 of 28 transects they visited. Ten spills along four of the transects were greater than a few hundred square feet in size (up to several thousand square feet), and four spills discharged directly to streams.[56] Similarly, HBT AGRA (1993) also observed spills along pipelines from wells to stations at 11 of the 66 routes they assessed.[57] A report dated November 3, 1978 mentioned 38 ruptures in the Sacha field pipes resulting from corrosion **during the month of September alone.** [58]

Texaco's preventative maintenance was also insufficient to prevent spills. Texaco spilled at least 26,400 barrels, the majority of which were the result of operational failures (Cabrera Vega, 2008, Annex I).[59] Oil spills by Texaco were numerous and often extremely large, and indicate sloppy practices. Rather than clean up its hydrocarbon and chemical spills,

---

[49] Cuerpo 97, Foja 10672, 3rd Para. Fugro McClelland (1992).

[50] Cuerpo 98, Foja 10815 (opposite side) – 18016: HBT AGRA (1993).

[51] Cuerpo 97, Foja 10678, 3rd Para. Fugro McClelland (1992).

[52] Cuerpo 97, Foja 10680, 2nd Para. Fugro McClelland, (1992).

[53] Cuerpo 97, Foja 10680, 2nd Para. Fugro McClelland (1992).

[54] Cuerpo 98, Foja 10853 (opposite side), 1st Para., HBT AGRA (1993).

[55] Cuerpo 97, Opposite side Foja 10691, last Para. Fugro McClelland (1992).

[56] Cuerpo 97, Foja 10724 &Opposite 10723, Tabla 6-11 Fugro McClelland (1992).

[57] Cuerpo 98, Foja 10829, 1st Para.: HBT AGRA (1993).

[58] Foja 139426.

[59] Refer to Passive Archive of the National Directory of Hydrocarbons; Passive Archive of the National Directory of Environmental Protection; Passive Archive of Petroleum Production Amazonian District; Passive Archive of Petroleum Production Quito. (Fojas 139423)

Texaco simply covered them with sand.[60] HBT AGRA (1993) reported that, between 1973 and 1990, spills were recorded at 93 of the 325 well sites and at 10 of the 22 production stations they audited.[61] In 1990, Texaco's oil spills resulting in dead or stressed vegetation were evident at Sacha Central, Shushufindi Central, Coca, Lago Agrio, and Auca stations.[62] While these spills were generally less than 1,000 square feet in size, the spill observed at Shushufindi was approximately 7,500 square feet in size.[63] There was also crude oil contamination at a majority of the well sites visited by the auditors, proving that Texaco operated the wells in a deficient manner. The contamination was usually located around well heads, valves, sampling ports, pipe joints, separators, shipping pumps, wash and surge tanks, injection and hydraulic oil pumps, and internal combustion engines.[64] Spills appear to have resulted from poor handling during maintenance and conditioning operations, transport, processing or storage of fuel, oil, and other operations.[65]

(d) *Air Quality*

During the time Texaco operated in Ecuador, the oil industry had established practices to protect air quality from vented gas and smoke generated by burning of oil. The API's (1962) depiction of a typical oil production operation in 1962 included a pipeline to transfer gas for use or sale, rather than release to the environment.[66] Industry guidelines clearly indicated that venting of gas should be avoided and that gas should be burned off or "flared."[67] Accepted practice for oil field flares in California in 1973 was to use technology that limited the amount of smoke.[68]

[60] Cuerpo 97, Opposite side Foja 10682, 2nd Para. - Foja 10690 2nd Para. Fugro McClelland (1992).

[61] Cuerpo 98, Foja 10800, Last, Para.: HBT AGRA (1993).

[62] Cuerpo 97, Foja 10680, Last Para.: Fugro McClelland (1992).

[63] Cuerpo 97, Foja 10680, Last Para. Opposite side Foja 10680 1st Para.:. Fugro McClelland (1992).

[64] Cuerpo 97, Opposite side of Foja 10689, 3rd and 4th Para.: Fugro McClelland (1992).

[65] Cuerpo 97, Opposite side of Foja 10689, 3rd Para.: Fugro McClelland (1992).

[66] See, Cuerpo 1489, Foja 158756-158834; "*Principles of Oil and Gas Production*," API (1962).

[67] API (1974).

[68] "*Air Pollution Engineering Manual,*" by J.A. Danielson of Air Pollution Control County of Los Angeles (May 1973).

In contrast to the standard practices of the time, Texaco vented large quantities of gas to the atmosphere. The gas and the oil - that they did burn were not burned in a manner intended to limit air pollution. The Fugro-McClelland (1992) auditors observed many flares that were not ignited, which means that gas was simply being released into the atmosphere. Fugro-McClelland (1992) also observed releases of unburned natural gas from vents on top of wash and surge tanks.[69]

Whereas accepted practice for flaring of gas was to use smokeless flares,[70] Texaco did not take these measures to limit smoke. Where gas was burned by Texaco in the Concession, black smoke was observed coming from Shushufindi Norte, Central, and Sur Oeste stations during Texaco's audit.[71] The practice of horizontal flaring, which was used by Texaco in the Concession, resulted in large plumes of black smoke. This practice was substandard compared to industry practices in the United States by the 1950s and 1960s, which included measures to prevent air quality nuisances caused by visual impact, smell, or health impact.[72] Fugro-McClelland (1992) reported that Texaco's operations included intentional burning of oil from spills and pits, and that this created large amounts of black smoke and soot.[73] In 1987, Texaco reported burning a 100-barrel spill, and the General Office of Hydrocarbons reported in 1976 that Texaco burned approximately 40 barrels of crude oil from the collection pit of the Sacha No. 37 well without prior authorization, causing serious damage to the adjacent premises.[74]

In sum, although standard practice at the time was to cleanly burn or flare gas, Texaco polluted the air by venting gas, burning and flaring gas improperly, and conducted open burning of spilled oil.

(e) *Drilling Muds*

[69] Cuerpo 97, Both sides of Foja 10689.: Fugro McClelland (1992).

[70] Danielson (1973).

[71] Cuerpo 97, Both sides of Foja 10689, Last Para.. Fugro McClelland (1992).

[72] California Health & Safety Code, § 41700 Prohibited Discharges (2006); originally promulgated as §24243 (1947); §24360 (1955); §39430 (1967); §39077 (1970). ("[N]o person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, *nuisance*, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property") (emphasis added).

[73] Cuerpo 97, Opposite side of Foja 10675, 1st Para.: Fugro McClelland (1992).

[74] Cuerpo 1255, Fojas 135407 y 135425.

Drilling muds are liquid solutions that are circulated through wells during drilling to lubricate and cool the drill head, to carry the drill cuttings to the surface, and to maintain pressure in the well.[75] This process generates waste that includes excess drilling mud, drill cuttings, and other chemicals used during the drilling process to increase well performance.[76] These other chemicals include corrosion inhibitors, wetting agents, defoamers, flocculants, surfactants, biocides, and lubricants.[77] The specific chemicals in drilling mud waste include barium, heavy metals (including chromium, lead, and zinc), chloride, petroleum compounds, and acids.[78]

It has long been recognized that drilling muds and fluids are toxic and potentially harmful and that they must be treated and disposed of with care. Studies by the United States Environmental Protection Agency ("U.S. E.P.A.") and the American Petroleum Institute confirm the environmental impacts of drilling muds and other drilling fluids on drinking water, plants, and animals.[79]

At the beginning of the twentieth century, drilling muds were typically disposed of in unlined pits constructed at well sites, but that practice was discontinued by approximately the 1940s. At that time, the standard practice in the oil industry began to be to use on-site pits that were designed to prevent environmental contamination as temporary storage areas for drilling muds and fluids, as well drilling continued. Once drilling was completed, the pit contents, including drilling muds, were removed or treated to provide permanent environmental protection (*see* Section II(A)(1).1(b), *infra*, on standard industry practices regarding pits.)

Texaco's handling in Ecuador of drilling muds and other drilling fluids was far below standard industry practices. Texaco's own audits of their practices document that they simply dumped drilling muds and other fluids in unlined pits or on the open ground, and left them there.[80] Alejandro Soto[81] and Segundo Ojeda[82] were eyewitnesses to Texaco's drilling in the

---

[75] "Characterization of Oil and Gas Waste Disposal Practices and Assessment of Treatment Costs." Final Report. 1995. Prepared for U.S. Department of Energy under Contract DE-AC22-92-MT92007 by P.B. Bedient, Rice University. page 13.

[76] Ibid. page 13

[77] Ibid. page 14

[78] Ibid. page 48-50; "Drilling fluids composition and use within the OK Offshore drilling industry." Health and Safety Laboratory. Offshore Technology Report – OTO 1999 089. Available: http://www.hse.gov.uk/research/otohtm/1999/oto99089.htm.

[79] Bedient, 1995. Pages 50-54.

[80] Cuerpo 98, Opposite Foja 10817: HBT AGRA (1993).

[81] Cuerpoo 40, Foja 3977: Testimony of Alejandro Soto Matailo before the Superior Court of Justice of Nueva Loja (Oct. 28, 2003).

[82] Cuerpo 40, Foja 3970: Testimony of Segundo Tobias Ojeda Yaguana before the Superior Court of Justice of Nueva Loja (Oct. 28, 2003).

Concession area; their testimony illuminates Texaco's malfeasance during the drilling process. Mr. Soto testified:

[T]he mud that came out when drilling was put next to the pits and the platform; it would not even all fit in the pit, it was left there in the water; a large part was distributed along the platform and the other part went to the rivers or marshes."[83]

* * *

[W]hen the petroleum came out, part of it was scattered at the beginning of the platform, and another part went to the earthen pits that they had ; once in the pit it was set on fire, burning the surrounding forest and what had been poured on the platform went straight to the marshes and rivers.[84]

* * *

[A]ll the mud residues, plastic waste, cans and everything that was trash were accumulated in the platform corner and by means of a bulldozer the waste was scattered during the platform maintenance; such waste is now buried in the ground.[85]

Mr. Ojeda, who worked for a company that was a contractor of Texaco, testified with respect to Texaco's drilling:

[F]irst a location was carried out in the place where the there was to be a well, that platform was installed; next to the this platform; two pits were located to deposit the mud and the crude, a nearby marsh or river was looked for to get water for the drilling and the drill was set in place." (…) The drilling mud was intended for those pits that were made.[86]

* * *

[C]ertain pits after the drilling were full of petroleum, full of mud, and in the rainy seasons they filled with rain water and emptied towards the marshes.[87]

* * *

[C]ertain residues went to the pits, at other times those that remained from the platforms when there were large amounts of crude were covered with sand and the rest was washed out by the rainfall as it ran down to the marshes.[88]

---

[83] Cuerpo 40, Foja 3977: Testimony of Soto (Oct. 28, 2003).

[84] Cuerpo 40, Both sides of Foja 3977: Testimony of Soto (Oct. 28, 2003).

[85] Cuerpo 40, Opposite side of Foja 3977: Testimony of Soto (Oct. 28, 2003).

[86] Cuerpo 40, Foja 3970: Testimony of Ojeda (Oct. 28, 2003).

[87] Cuerpo 40, Foja 3970: Testimony of Ojeda (Oct. 28, 2003).

[88] Cuerpo 40, Opposite side of Foja 3970: Testimony of Ojeda (Oct. 28, 2003).

In addition to the aforementioned testimony, Court expert Gerardo Barros confirmed the toxicity of drilling waste and Texaco's improper handling of that waste. In his Report, Barros opined:

> The drilling and exploratory tests generate large quantities of waste containing toxic compounds" Most of this waste was placed in open holes, known as reserve pits (at the beginning of the Ecuadorian Oil Industry, waste was placed directly in the surrounding fields or nearby waters). In general, the pits were not covered (with geomembrane) and were rudimentarily built, in accordance with current requirements.[89]

2. Texaco's Culture of Malfeasance and Fraud: The Decisions That Led to the Damage

In the evidentiary phase of the trial, Plaintiffs submitted to the Court approximately 496 pages containing correspondence and memos exchanged between and among Texaco personnel.[90] These documents were generally obtained in the context of the *Aguinda* case filed in United States federal court in New York and dismissed prior to the filing of the present case before this Court. The documents are damning for Chevron, to say the least. While it is of course patently obvious that Texaco cut corners to increase profit, these documents confirm Texaco's disturbing disregard for environmental issues in favor of the corporate bottom line. By way of example:

- Letter from M. A. Martínez (Manager TexPet, Quito) in Ecuador to R.C. Shields (Chairman of the Board of Directors, TexPet) in the United States, 1976:

> The Division has received a letter from the Hydrocarbon Chairman (DGH) requesting urgent action to solve a contamination problem caused by breaks in the reserve pit in embankment. Such break was caused due to excessive rains and, in some cases, as a result of improper drainage of the pits. The DGH has requested that we drain the pits and cover them. However, this <u>will be significantly more expensive.</u> Besides, we still have the problem of mud disposal without polluting the environment. We expect that the DGH accepts this alternative solution of repairing the existing pits (emphasis added). [91]

- Letter from D.W. Archer (District Superintendent) to Rene Bucaram (Engineer), 1980.[92] This letter was sent in reply to the Ecuadorian government's request to Texaco to conduct

[89] Cuerpo 1500, Foja 159922, 1st Para.: Expert Report of the Engineer Gerardo Barros.

[90] Cuerpo 67; Fojas 6992 en adelante; Cuerpo 800, Foja 87967

[91] Cuerpo 67, Foja 7020 : Letter from M.A. Martinez to R.C. Shields (March 19, 1976).

[92] Cuerpo 67 Foja 7021 : Letter from D.W. Archer (District Superintendent) to Renee Bucaram (Engineer) (June 25, 1980)

a study to determine the feasibility, costs and needs to eliminate the pits. Important pieces of Texaco's reply provide:

> In general, the possibility of contamination due to our current disposal of wastes in pits is minimum (…). We recommend not coating, filling or fencing the pits. We recommend to continue using siphons to maintain the oil and the drained water in the pits. In the first place, the current pits are necessary for an efficient and economic operation of our drilling and upgrading programs and for our production operations. An alternative to use our current pits is to use steel pits at a prohibitive cost. The additional cost for transporting the pits for each operation of upgrading and making them smaller would be also high. A second alternative is to fill the old pits, drill new pits and coat the new ones. The cost for filling the new pits would be US $ 5,180 per pit or US$ 1,222,480 for the 236 pits. The cost for drilling new pits would be US$ 472,000. The cost for coating the new pits would be US $ 2,502,488. The total amount for eliminating the old pits and coating new ones would be US $4,197,968. Therefore, we recommend not to fence, coat or fill the pits and to continue using siphons (emphasis added).[93]

- Letter from Thomas F. Crawford (District Superintendent) to Dr. Juan M. Quevedo, 1987:

> Contamination is one of the most serious problems in recent years and its attention is focused in an economic treatment to eliminate mostly the contamination in water courses and reservoirs. [94]

The first two quoted letters are replies to requests from the Ecuadorian government to use alternative, cleaner, techniques. Faced with such requests, Texaco chose instead to continue the use of cheap, obsolete techniques. In the third quoted letter, a Texaco employee clearly states that the level of the company's attention to environmental issues is driven by economic interests.

As nefarious as Texaco's decision-making process with respect to pollution controls was, Texaco's policy with regard to recording environmental incidents such as spills was even more scandalous. On July 17, 1972, Texaco executive Robert M. Bischoff circulated, on behalf of Robert C. Shields, Chairman of the Board of Directors of TexPet, a confidential memorandum to TexPet's Acting Manager in Ecuador entitled "Reporting of Environmental

[93] Cuerpo 67, Foja 7021: Letter from D.W. Archer (June 25, 1980).

[94] Cuerpo 800, Foja 87967: Letter from Thomas F. Crawford (District Superintendent) to Dr. Juan Quevedo (1987)

Incidents: New Instructions" (the "Shields Memorandum").[95] The Shields Memorandum instructs the company's employees in Ecuador as follows, in pertinent part:

> Only major events . . . are to be reported. . . . A major event is further defined as one which attracts the attention of the press and/or regulatory authorities or in your judgment merits reporting.[96]

Shockingly, Texaco's personnel in Ecuador were instructed only to record spills and other environmental incidents if the media or the government became independently aware of the incident. In other words, unless Texaco was caught "red-handed" by the public, it would not document its pollution – no matter how disastrous that pollution might be.

The Shields Memorandum did not end with *concealment* alone. Indeed, Texaco personnel were further instructed:

> No reports are to be kept on a routine basis and all previous reports are to be removed from Field and Division Offices and destroyed.

Thus, even on the rare occasion where Texaco was forced to create a report of an incident because the public had somehow become aware of it despite Texaco's concealment, those records were not routinely maintained in the file. And worse yet, *all* records of environmental incidents prior to July of 1972 – again, no matter the magnitude of those incidents – were *destroyed*[97].

Texaco's two-pronged policy of concealment of environmental incidents and destruction of any records that actually were at some point reported assured that the people living in the Concession area were deprived of the opportunity to hold Texaco accountable contemporaneously with its intentional decimation of the Ecuadorian Amazon. Perhaps if Texaco had reported its malfeasance, decades of contamination could have been avoided. Simply put, Texaco's policy of non-reporting and destruction of records was criminal – an outright fraud on the people of Ecuador. If Texaco had adopted such a policy in the United States, many people would have gone to prison.

---

[95] Cuerpo 1307, Foja 140585: Memorandum "Reporting of Environmental Incidents: Instructions," on behalf of Robert C. Shields, Chairman of the Board of Directors of TexPet (July 1, 1972).

[96] Cuerpo 1037, Foja 140585: Shields Memo (July 17, 1972).

[97] Cuerpo 1037, Foja 140585: Shields Memo (July 17, 1972).

B. Irrefutable Evidence of Contamination

1. The Judicial Inspections: Contamination at *Every* Former Texaco Site

During the Judicial Inspection of 54 sites operated by Texaco, samples were taken and tested for several different chemicals and/or chemical compounds. Each of these chemicals is associated with an adverse impact on human health according to the United States Agency for Toxic Substances and Disease Registry ("ATSDR"), a federal public health agency charged under the U.S. Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") with the responsibility of assessing the presence of health hazards and toxicity of chemicals found at contaminated sites.[98] Each of the following compounds/chemicals were tested for and indeed found in levels exceeding Ecuadorian standards, to some extent, at one or more of the sites:

- Barium: An inorganic compound that affects the cardiovascular, gastrointestinal and reproductive systems.[99]
- Benzene: An inorganic substance known to be a human carcinogen that affects the hematological, immune, and nervous systems.[100]
- Cadmium: An inorganic substance known to be a human carcinogen that affects the cardiovascular, gastrointestinal, nervous, renal, reproductive, and respiratory systems.[101]
- Copper: An inorganic substance affecting the gastrointestinal, hematological and heptic systems.[102]
- Chromium: An inorganic substance known to be a human carcinogen that affects the immune, renal and respiratory systems.[103]
- Ethylbenzene: A volatile organic compound that affects development and the nervous system.[104]
- Benz(a)anthracene, Benzo(a)pyrene, Phenanthrene, Indeno(1,2,3-cd)pyrene, and Fouranthene: All are Polycyclic Aromatic Hydrocarbons ("PAH"s). PAHs have not been uniformly identified as known human carcinogens. However, they affect the pulmonary, gastrointestinal, renal and dermatologic systems.[105]
- Mercury: An inorganic substance that affects development as well as the gastrointestinal, nervous, ocular and renal systems.[106]

---

[98] *See*, *generally*, http://www.atsdr.cdc.gov/. ATSDR is indeed the preeminent authority on the toxicity of contaminants.

[99] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=57

[100] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=14

[101] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=15

[102] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=37

[103] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=17

[104] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=66

[105] http://www.atsdr.cdc.gov/csem/pah/pah_physiologic-effects.html

[106] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=24

- Naphthalene: Reasonably anticipated to be a human carcinogen affecting the hematological, hepatic, neurological, ocular and respiratory systems.[107]
- Nickel: An inorganic substance known to be a human carcinogen that affects the cardiovascular, immune, respiratory and dermal system.[108]
- Lead: An inorganic substance affecting development and the cardiovascular, hematological, musculoskeltal, nervous, ocular, renal and reproductive systems.[109]
- Toulene: A hydrocarbon that affects the cardiovascular and nervous system.[110]
- Total Petroleum Hydrocarbons ("TPH"): Affect development as well as the hematological, hepatic, immune and renal systems.[111]
- Vanadium: An inorganic substance affecting the cardiovascular, gastrointestinal, renal, reproductive, and respiratory systems.[112]
- Zinc: An inorganic substance that affects the gastrointestinal, hematological and respiratory systems.[113]

During the trial, both Plaintiffs and Chevron conducted soil and water sampling at the various Texaco sites. Levels of contamination above the Ecuadorian standard[114] (*See* Figure 1, *infra*) were found at **every single one of these sites** – with exceedances often shockingly above the threshold that Ecuador has deemed hazardous. In fact, many of these exceedances were identified **by Chevron's own experts**. Below, we present to the Court a summary of the findings from the judicial site inspections performed by the parties, including an identification of the source of the findings (*i.e.*, whether exceedances were found by Plaintiffs' experts, Chevron's experts, or both).

[107] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=43

[108] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=44

[109] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=22

[110] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=29

[111] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=75

[112] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=50

[113] http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=54

[114] One of Chevron's many tired refrains in this case is that the present Ecuadorian standards have no application here because they were not in effect during the time that Chevron operated in the Napo Concession. This argument is nonsense. At the time that Chevron operated in Ecuador, the environmental laws in place contemplated a zero tolerance standard for pollution – simply put, under that framework, if a company has placed toxins in the ground that were not there before, that company has violated Ecuadorian law and must clean those toxins up. (*See, generally*, Section III(A), *infra*.) The present standards merely serve as a reference point for just how threatening the contamination really is. There is no need for this Court to turn a blind eye to the present scientific understanding, as Chevron urges. The law obligates Chevron to fix the mess it has caused – the current standards merely illuminate just how big of a "mess" we are faced with.

Figure 1: Ecuadorian Thresholds for Pertinent Compounds

Chemical	Ecuadorian Limit
Barium (soil)	750
Barium (water)	0.0338
Benzene (soil)	0.05
Benzene (water)	0.001
Benz (a) anthracene (soil)	0.1
Benz (a) anthracene (water)	0.00025
Benzo (a) pyrene (soil)	0.1
Benzo (a) pyrene (water)	0.00001
Cadmium (soil)	1
Cadmium (water)	0.001
Copper (soil)	63
Copper (water)	0.02
Chromium (soil)	65
Chromium (water)	0.016
Chromium VI (soil)	0.4
Chromium VI (water)	0.05
Ethylbenzene (soil)	0.1
Phenanthrene (water)	0.0025
Fluoranthene (water)	0.0005
PAHs (soil)	1
PAHs (water)	0.0003
Indeno (1, 2, 3 cd) pyrene (soil)	0.000025
Mercury (soil)	0.8
Mercury (water)	0.00018
Naphthalene (soil)	0.1
Naphthalene (water)	0.035
Nickel (soil)	40
Nickel (water)	0.025
pH	6.5
Pyrene (soil)	0.1
Lead (soil)	80
Lead (water)	0.045
TDS	500
Toluene (soil)	0.1
TPH (soil)	1,000
TPH (water)	0.325
TPH (DRO + GRO) (soil)	1,000
TPH (DRO + GRO) (water)	0.325
Vanadium (soil)	130
Vanadium (water)	0.1
Xylene (soil)	0.1
Zinc (soil)	200

Zinc (water)	0.18

***All contamination levels in soil are measured in mg/kg. All contamination levels in water are measured in kg/l.**

Aguarico Station: Texaco initiated operations at Aguarico Station in 1974. Six pits and one tank were found during Judicial Inspection. Even though Aguarico Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Benzene[*], Benz(a)anthracene[*o], Benzo(a)pyrene[*o], Chromium VI[o], Ethylbenzene[*], PAHs[o], Naphthalene[*], Pyrene[*o], TPH [*o], Vanadium[*], and Xylene[*]. The judicial inspections also showed that levels of Barium[*o], Benzo(a)pyrene[o], Cadmium[o], PAHs[o], and TPH[o] in the water at this site are over Ecuadorian standards. In fact, barium exceeds the standard by over 1,000 times. Other substances like TPH, Naphthalene, and PAHs exceed the standard by over 200 times.[115]

Lago Agrio Central Station: Texaco initiated operations at Lago Agrio Central Station in 1972. Four pits were found during Judicial Inspection. Even though Lago Agrio Central Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benzene[*], Benz(a)anthracene[*], Benzo(a)pyrene[*o], Chromium VI[o], Ethylbenzene[*], Naphthalene[*], Pyrene[*], Toluene[*],TPH [*o], and Xylene[*]. The judicial inspections also showed that levels of Barium[*o], Benzo(a)pyrene[*o], Chromium[*], Phenanthrene [*], PAHs[o], Naphthalene[*], TDS[*], and TPH[o] in the water at this site are over Ecuadorian standards.[116]

Lago Agrio Norte Station: Texaco initiated operations at Lago Agrio Norte Station in 1972. Four pits were found during Judicial Inspection. Lago Agrio Norte Station was included in the RAP. However, no remediation efforts were made at this station. The following chemicals were found to surpass Ecuadorian standards for soil contamination: Barium[*o], Benzene[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Copper[*], Ethylbenzene[*], Naphthalene[*], Pyrene[*], TPH [*o], and Zinc[*]. The judicial inspections also showed that levels of Barium[*o], Cadmium[o], Chromium VI[o], PAHs[o], Lead[o], and TPH[o] in the water at this site are over Ecuadorian standards. Additionally, Cadmium levels were 7,900 times greater than what is permitted by the standards and Chromium VI levels were more than 13 times over what is stipulated in the standards. [117]

---

[115] Exceedances indicated by " * " were found in the Station Aguarico Expert Report of Fernando Morales, an expert nominated by Chevron; the Exceedances indicated by " º " were found in the Aguarico Station Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

[116] Exceedances indicated by " * " were found in the Lago Agrio Central Station Report of Fernando Morales an expert nominated by Chevron; the exceedances indicated by " º " were found in the Lago Agrio Central Station Expert Report of Luis Villacreces an expert nominated by the Plaintiffs.

[117] Exceedances indicated by " * " were found in the Lago Agrio Norte Station Report of Fernando Morales, an expert nominated by Chevron; the exceedances indicated by " º " were found in the Lago Agrio Norte Station Expert Report of Javier Grandes, an expert nominated by the Plaintiffs.

Sacha Central Station: Texaco initiated operations at Sacha Central Station in 1972. Eight pits were found during Judicial Inspection. Even though Sacha Central Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*o], Benz(a)anthracene[*], Benzo(a)pyrene[*], Chromium VI[o], Copper[*], Ethylbenzene[*], Naphthalene[*], Pyrene[*], TPH [*o], and Xylene[*]. The judicial inspections also showed that levels Barium[*o], Cadmium[o], Chromium VI[o], PAHs[o], Nickel[o], Lead[o], TDS[*], TPH[o] and Zinc[o] in the water at this site are over Ecuadorian standards.[118]

Sacha Norte 1 Station: Texaco initiated operations at Sacha Norte 1 Station in 1972. Five pits were found during Judicial Inspection. Even though Sacha Norte 1 Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benzo(a)pyrene[*], Cadmium[*], Copper[*o], Chromium VI[o], Naphthalene[*], Pyrene[*], TPH [*o], and Vanadium[*]. The judicial inspections also showed that levels Benzo(a)pyrene[*o], Copper[o], Indeno(1, 2, 3-cd)pyrene[*], Naphthalene[*], TDS[*], and TPH[o] in the water at this site are over Ecuadorian standards.[119]

Sacha Norte 2 Station: Texaco initiated operations at Sacha Norte 2 Station in 1972. Two pits were found during Judicial Inspection. Even though Sacha Norte 2 Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to surpass Ecuadorian standards for soil contamination: Barium[* o], Benzene[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium[*], Chromium VI[o], Ethylbenzene[*], PAHs[o], Naphthalene[*o], Pyrene[*o], TPH [*o], and Xylene[*]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[*], Phenanthrene[*], Indeno(1, 2, 3-cd)pyrene[*], Naphthalene[*] and TDS[*] in the water at this site are over Ecuadorian standards.[120]

[118] Exceedances indicated by " * " were found in the Sacha Central Station Report of John Connor, an expert nominated by Chevron; the exceedances indicated by " o " were found in the Sacha Central Station Well Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[119] Exceedances indicated by " * " were found in the Sacha Norte 1 Station Report of Bjorn Bjorkman, an expert nominted by Texaco; the exceedances indicated by " o " were found in the Sacha Norte 1 Station Well Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[120] Exceedances indicated by " * " were found in the Sacha Norte 2 Station Report of Bjorn Bjorkman, an expert nominated by Chevron; the exceedances indicated by " o " were found in the Sacha Norte 2 Station Well Expert Report of FransiscoViteri, an expert nominated by the Plaintiffs.

Sacha Sur Station: Texaco initiated operations at Sacha Sur Station in 1972. Four pits were found on this site. During the Judicial Inspections the following chemicals were found to surpass Ecuadorian standards for soil contamination: Barium[*] [o], Cadmium[*] [o], Copper[*o], Chromium VI[o], Naphthalene[*], Pyrene[*], TPH [*o], and Vanadium[*]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[o], PAHs[o], Nickel [o], and TPH [o] in the water at this site are over Ecuadorian standards.[121]

Shushufindi Central Station: Texaco initiated operations at Shushufindi Central Station in 1972. Eight pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Benz(a)anthracene [o], Benzo(a)pyrene [o], PAHs[o] Naphthalene [o], Nickel [o] and TPH [o]. The judicial inspections also showed that levels of Barium[*o], Benz(a)anthracene[o], Benzo(a)pyrene [o], PAHs [o], Indeno(1, 2, 3-cd)pyrene[o], Naphthalene[*], TDS[*] and TPH [o] in the water at this site are over Ecuadorian standards.[122]

Shushufindi Norte Station: Texaco initiated operations at Shushufindi Norte Station in 1972. Thirteen pits were found during Judicial Inspection. Even though Shushufindi Norte Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium, Benz(a)anthracene, Benzo(a)pyrene, Copper, Naphthalene, Pyrene, TPH and Xylene. The judicial inspections also showed that levels of Barium, TDS and Zinc in the water at this site are over Ecuadorian standards.[123]

Shushufindi Sur Station: Texaco initiated operations at Shushufindi Sur Station in 1975. Four pits were found during Judicial Inspection. Even though Shushufindi Sur Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium [*o], Copper[*], Chromium VI [o], Naphthalene[*], Pyrene[*] and TPH[*] [o]. The judicial inspections also showed that levels of Barium[*] [o], Cadmium [o], Nickel[*], TDS[*], TPH [o] and Zinc [o] in the water at this site are over Ecuadorian standards.[124]

Shushufindi Suroeste Station: Texaco initiated operations at Shushufindi Suroeste Station in 1975. Seven pits were found during Judicial Inspection. Even though Shushufindi Suroeste Station was included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards

---

[121] Exceedances indicated by " * " were found in the Sacha Sur Station Report of Bjorn Bjorkman, an party nominated expert nominated by Chevron; the exceedances indicated by " [o] " were found in the Sacha Sur Station Well Expert Report of Orlando Felicito, an expert nominated by the Plaintiffs.

[122] Exceedances indicated by " * " were found in the Shushufindi Central Station Report of Prof. Fernando Morales, an expert nominated by Chevron; the exceedances indicated by " [o] " were found in the Shushufindi Central Station Well Expert Report of Fransisco Viteri, an expert nominated by the Plaintiffs.

[123] Exceedances found in Shushufindi Norte Station Report of John Connor, an expert nominated by Chevron.

[124] Exceedances indicated by " * " were found in the Shushufindi Sur Station Report of John Connor, an expert nominated by Chevron; the exceedances indicated by " [o] " were found in the Shushufindi Sur Station Well Expert Report of Oscar Dávila, an expert nominated by the Plaintiffs.

for soil contamination: Barium[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium [*], Copper[*], Naphthalene[*], Nickel[*], Pyrene[*] and TPH [*]. The judicial inspections also showed that levels of Barium[*o], Benzene[*], Chromium [o] and TDS [*] in the water at this site are over Ecuadorian standards.[125]

Well Auca 1: Texaco drilled Well Auca 1 in 1970 and initiated oil production in 1975. One pit was found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Benz(a)anthracene [o], Cadmium [*], PAHs [o], Naphthalene[* o], Pyrene[*] and TPH [* o].[126]

Well Cononaco 6: Texaco drilled Well Cononaco 6 in 1984 and initiated oil production in the same year. The well was closed by Texaco in January of 1989. One pit was found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benz(a)anthracene [o], Cadmium [*], Copper[*], Chromium [*], Chromium VI [o], PAHs[o], Naphthalene[* o], Nickel[* o], Lead [*], TPH [o] and Vanadium[*]. The chemical results of the expert Richard Cabrera also showed that levels for TPH in sediment at this site are over the Ecuadorian standard. Conanaco 6 was operated exclusively by Texaco. [127]

Well Guanta 6: Texaco drilled Well Guanta 6 in 1987 and initiated oil production in the same year. Two pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Cadmium [*], Chromium VI [o] and TPH [o]. The judicial inspections also showed that levels of Barium [o], Benzo(a)pyrene [o] and TPH [o] in the water at this site are over Ecuadorian standards.[128]

[125] Exceedances indicated by " * " were found in the Shushufindi Suroeste Station Report of Ernesto Baca, an expert nominated by Chevron; the exceedances indicated by " o " were found in the Shushufindi Suroeste Station Well Expert Report of Oscar Dávila, an expert nominated by the Plaintiffs.

[126] Exceedances indicated by " * " were found in the Well Auca 1 Report of Salcedo, an expert nominated by Texaco. Exceedances indicated by " o " were found in the Well Auca 1 Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

[127] Exceedances indicated by " * " were found in the Well Cononaco 6 Report of Ernesto Baca, an expert nominated by Chevron. Exceedances indicated by " o " were found in the Well Cononaco 6 Expert Report of Luis Villacreces party nominated expert by Plaintiffs.

[128] Exceedances indicated by " * " were found in the Well Guanta 6 Report of Gino Bianchi, an expert nominated by Chevron. Exceedances indicated by " o " were found in the Well Guanta 6 Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

Well Guanta 7: Texaco drilled Well Guanta 7 in 1987 initiated oil production in the same year. Two pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Copper*, Chromium VI º, Nickel º, TPH º, and Vanadium*.[129]

Well Lago Agrio 2: Texaco drilled Well Lago Agrio 2 in 1967 and initiated oil production in 1972. Four pits were found on this site. One of the pits was included in the RAP and was subject to complete remediation. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Benzo(a)pyrene º, Copper *, Chromium VI º, PAHs º, Naphthaleneº, Pyreneº and TPHº. The judicial inspections also showed that levels of Benzo(a)pyrene *º, PAHs º and Indeno(1, 2, 3-cd)pyrene* in the water at this site are over Ecuadorian standards.[130]

Well Lago Agrio 6: Texaco drilled Well Lago Agrio 2 in 1970 and initiated oil production in 1972. The well was closed by Texaco in June of 1985. Five pits were found on this site. One of the pits was included in the RAP and was subject to complete remediation. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Chromium VI º, PAHs º, Naphthalene*º, Pyrene*º and TPH*º. Lago Agrio 6 was operated exclusively by Texaco. [131]

Well Lago Agrio 11A: Texaco drilled Well Lago Agrio 11A in 1970 and initiated oil production in 1972. The well was closed by Texaco in May of 1972. Three pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium*º, Cadmium º, Chromium VI º, and TPH *º. The judicial inspections also showed that levels of Barium *, Benzo(a)pyrene º, Cadmium º, PAHs º, and TPH º* in the water at this site are over Ecuadorian standards. The well was operated exclusively by Texaco. Consequently all of the contamination found on the site can only be attributed to Texaco operations.[132]

[129] Exceedances indicated by " * " were found in the Well Guanta 7 Report of Gino Bianchi, an expert nominated by Chevron. Exceedances indicated by " º " were found in the Well Guanta 7 Expert Report of Dr. Villavicencio, an expert nominated by the Plaintiffs.

[130] Exceedances indicated by " * " were found in the Well Lago Agrio 2 Report of Gino Bianchi party nominated expert by Texaco; Exceedances indicated by " º " were found in the Well Lago Agrio 2 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[131] Exceedances indicated by " * " were found in the Well Lago Agrio 6 Report of Gino Bianchi party nominated expert by Texaco; Exceedances indicated by " º " were found in the Well Lago Agrio 6 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[132] Exceedances indicated by " * " were found in the Well Lago Agrio 11A Report of Ernesto Baca party nominated expert by Texaco; Exceedances indicated by " º " were found in the Well Lago Agrio 11A Expert Report of José Robalino, n expert nominated by the Plaintiffs.

Well Lago Agrio 15: Texaco drilled Well Lago Agrio 15 in 1970 and initiated oil production in 1972. The well was closed by Texaco in March of 1988. Two pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[o], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium[o], Naphthalene[*], Pyrene[*] and TPH[*o]. The judicial inspections also showed that levels of Benzo(a)pyrene[o], Cadmium[o], and PAHs[o] in the water at this site are over Ecuadorian standards. This well was exclusively operated by Texaco.[133]

Well Sacha 16: Texaco drilled Well Sacha 6 in 1971 and initiated oil production in 1972. Four pits were found on this site. Two of the pits were included in the RAP, but only one was remediated. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium, Cadmium, Copper, Naphthalene, Pyrene, Toluene, TPH, and Zinc. The judicial inspections also showed that levels of Barium, Copper, Nickel, and Zinc in the water at this site are over Ecuadorian standards.[134]

Well Sacha 10: Texaco drilled Well Sacha 10 in 1971 and initiated oil production in 1972. The well was closed in November of 1998. Two pits were found on this site. One of the pits was included in the RAP. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Benzo(a)pyrene[*], Copper[*], Chromium[o], Naphthalene[*], Pyrene[*], TPH[*], and Zinc[*]. The judicial inspections also showed that levels of Barium[o], Chromium[o], and Lead[o] in the water at this site are over Ecuadorian standards.[135]

Well Sacha 13: Texaco drilled Well Sacha 13 in 1971 and initiated oil production in 1972. Two pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Cadmium[*o], Copper[*], Chromium[o], Chromium VI[o], Naphthalene[*], Nickel[*], and TPH[*o]. The judicial inspections also showed that levels of Barium[*o], Benzene[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium[*], Copper[*], Chromium[o], Phenanthrene[*], Fluoranthene[*], Indeno(1, 2, 3-cd)pyrene[*], Naphthalene[*], Nickel[*], TPH[*o], and Zinc[*] in the water at this site are over Ecuadorian standards.[136]

[133] Exceedances indicated by " * " were found in the Well Lago Agrio 15 Report of Ernesto Baca party nominated expert by Texaco; Exceedances indicated by " o " were found in the Well Lago Agrio 15 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[134] Exceedences found in Well Sacha 6 Report of John Connor, an expert nominated by Chevron.

[135] Exceedances indicated by " * " were found in the Well Sacha 10 Report of Gino Bianchi, an expert nominated by Chevron; Exceedances indicated by " o " were found in the Well Sacha 10 Expert Report of Edison Camino, an expert nominated by the Plaintiffs.

[136] Exceedances indicated by " * " were found in the Well Sacha 13 Report of Gino Bianchi, an nominated expert by Texaco; Exceedances indicated by " o " were found in the Well Sacha 13 Expert Report of Luis Villacreces party nominated expert by Plaintiffs.

Well Sacha 14: Texaco drilled Well Sacha 14 in 1971 and initiated oil production in 1972. Six pits were found on this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*] [o], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium [*] [o], Copper [*], Chromium [o], Chromium VI [o], Naphthalene[*], Pyrene[*], and TPH[*] [o]. The judicial inspections also showed that levels of Barium [o], Benzo(a)pyrene[*], Cadmium [o], Chromium VI [o], Indeno(1, 2, 3-cd)pyrene[*], Nickel [o], Lead [o], TPH [*] [o], and Zinc [o] in the water at this site are over Ecuadorian standards.[137]

Well Sacha 18: Texaco drilled Well Sacha 18 in 1971 and initiated oil production in 1972. Two pits were found in this site. Both of the pits were included in the RAP but only one of them was remediated, the other pit was previously closed and was not remediated completely. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*] [o], Benz(a)anthracene[*-], Benzo(a)pyrene[*], Cadmium [*], Copper [*], Chromium VI [o], PAHs [o], Naphthalene[*-], Pyrene[*], Lead [o], and TPH[*] [o] [-]. The judicial inspections also showed that levels of Barium [o], Benzo(a) anthracene [-], Cadmium [*], Chromium VI [o], Phenanthrene[-], PAHs [o], Nickel [o], Lead [o], TPH [–] [o], and Zinc [o] in the water at this site are over Ecuadorian standards.[138]

Well Sacha 21: Texaco drilled Well Sacha 21 in 1971 and initiated oil production in 1972. The well was closed in 1994. Three pits were found on this site. Two of the pits were included in the RAP. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium, Benz(a)anthracene, Benzo(a)pyrene, Cadmium, Copper, Naphthalene, Pyrene, and TPH . The judicial inspections also showed that levels of Barium in the water at this site are over Ecuadorian standards.[139]

Well Sacha 51: Texaco drilled Well Sacha 51 in 1973 and initiated oil production in the same year. Five pits were found on this site. Even though all of the pits were included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Benzo(a)pyrene [*] [o], Cadmium[o], Copper[*], Chromium[o], PAHs [o], Naphthalene[*], Nickel[*], Pyrene[*], and TPH [o] [*]. The judicial inspections also showed that levels of Barium [o], Chromium [o], Nickel [o], TPH [o*], and Zinc [o] in the water at this site are over Ecuadorian standards.[140]

---

[137] Exceedances indicated by " * " were found in the Well Sacha 14 Report of Ernesto Baca party expert nominated by Chevron; Exceedances indicated by " o " were found in the Well Sacha 14 Expert Report of Oscar Dávila, an expert nominated by the Plaintiffs.

[138] Exceedances indicated by " * " were found in the Well Sacha 18 Report of Prof. Fernando Morales, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Sacha 18 Expert Report of Prof. Jose Robalino, an expert nominated by the Plaintiffs; exceedances indicated by " - " refer to the Global Assessment Report of Expert Richard S. Cabrera.

[139] Exceedances were found in the Well Sacha 21 Report of John Connor, an expert nominated by Chevron.

[140] Exceedances indicated by " * " were found in the Well Sacha 51 Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Sacha 51 Expert Report of Edison Camino, an expert nominated by the Plaintiffs.

Well Sacha 53: Texaco drilled Well Sacha 53 in 1973 and initiated oil production in the same year. Four pits were found on this site. Even though all of the pits were included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium*, Benz(a)anthracene*, Benzo(a)pyrene *, Cadmium*, Copper*, Chromium VI º, Naphthalene*, Pyrene*, and TPH* º. The judicial inspections also showed that levels of Barium º, Copper º, Chromium VI º, TPH º, and Zinc º in the water at this site are over Ecuadorian standards.[141]

Well Sacha 57: Texaco drilled Well Sacha 57 in 1973 and initiated oil production in the same year. The well was closed by Texaco in October of 1980. Four pits were found on this site. Even though three of the pits were included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium, Benz(a)anthracene, Benzo(a)pyrene, Copper, Naphthalene, Nickel, Pyrene, and TPH. Well Sacha 57 was exclusively operated by Texaco.[142]

Well Sacha 65: Texaco drilled Well Sacha 65 in 1973 and initiated oil production in the same year. The well was closed in August of 1992. Three pits were found on this site. Even though two of the pits were included in the RAP, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium*, Benz(a)anthracene*, Copper*, Naphthalene*, Pyrene* and TPH* º. The judicial inspections also showed that levels of Cadmiumº, Nickelº, and TPH º in the water at this site are over Ecuadorian standards. The well was predominantly operated by Texaco.[143]

[141] Exceedances indicated by " * " were found in the Well Sacha 53 Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " º " were found in the Well Sacha 53 Expert Report of Edison Camino, an expert nominated by the Plaintiffs.

[142] Exceedances indicated were found in the Well Sacha 57 Report of Gino Bianchi, an expert nominated by Chevron.

[143] Exceedances indicated by " * " were found in the Well Sacha 65 Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " º " were found in the Well Sacha 65 Expert Report of Oscar Dávila, an expert nominated by the Plaintiffs.

Well Sacha 85: Texaco drilled Well Sacha 85 in 1976 and initiated oil production in the same year. Four pits were found on this site. All the pits were included in the RAP but none was remediated. Two of the pits were not remediated because they were previously closed, another was not remediated because it was in use of the local community, and presumably no contamination was found in the last pit. Even though Texaco concluded in the RAP that no further remediation was necessary, judicial inspection revealed both soil and water chemical exceedances. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*] [o], Benz(a)anthracene[*], Benzo(a)pyrene [*], Copper [*], Chromium VI [o], Naphthalene[*], Pyrene[*], and TPH[*] [o]. The judicial inspections also showed that levels of Barium [o], Chromium VI [o], PAHs [o], Nickel[o], Lead [o], TPH [o], and Zinc [o] in the water at this site are over Ecuadorian standards.[144]

Well Sacha 94: Texaco drilled Well Sacha 94 in 1981 and initiated oil production in 1982. The well was closed by Texaco in February of 1985. Five pits and four tanks were found on this site. The pits were included in the RAP, but only three were remediated. Even though the pits were included in the RAP during the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benz(a)pyrene[*], Cadmium[*], Copper[*], Naphthalene[*], Pyrene[*], and TPH[*] [o]. The judicial inspections also showed that levels of Barium [o], Copper [o], Chromium VI [o], Nickel[o], Lead [o], and Zinc [o] in the water at this site are over Ecuadorian standards. Well Sacha 94 was exclusively operated by Texaco.[145]

Well Shushufindi 4: Texaco drilled Well Shushufindi 4 in 1978 and initiated oil production in the same year. Five pits were found in this site. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*] [o], Benz(a)pyrene [o], Cadmium [o], Copper[*], Chromium VI [o], PAHs [o], Naphthalene [o], Nickel [o], Pyrene [o], TPH [o], and Vanadium[*]. The judicial inspections also showed that levels of Benz(a)pyrene[o], PAHs[o], Indeno(1, 2, 3-cd)pyrene[o], and TPH [o] in the water at this site are over Ecuadorian standards.[146]

Well Shushufindi 7: Texaco drilled Well Shushufindi 7 in 1972 and initiated oil production in the same year. Four pits were found on this site. Two of the pits were included in the RAP. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*] [o], Benz(a)pyrene[o], Cadmium[*], Copper[*], Chromium VI [o], PAHs[o], Naphthalene[o*], Pyrene[o*], TPH[o*] ,Vanadium[*], and Zinc [o].[147]

---

[144] Exceedances indicated by " * " were found in the Well Sacha 85 Report of Prof. Fernando Morales, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Sacha 85 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[145] Exceedances indicated by " * " were found in the Well Sacha 94 Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Sacha 94 Expert Report of Charles Calmbacher, an expert nominated by the Plaintiffs.

[146] Exceedances indicated by " * " were found in the Well Shushufindi 4 Re port of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Shushufindi 4 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[147] Exceedances indicated by " * " were found in the Well Shushufindi 7 Report of Gino Bianchi, an expert nominated by Chevron; Exceedances indicated by " o " were found in the Well Shushufindi 7 Expert Report of Fransisco Viteri, an expert nominated by the Plaintiffs.

Well Shushufindi 8: Texaco drilled Well Shushufindi 8 in 1972 and initiated oil production in the same year. Four pits were found on this site. All of the pits were included in the RAP. However one pit was not completely remediated because no ecological impacts were found. Even though the pits were included in the RAP during the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Cadmium[o], Copper [*], and TPH [o*]. The judicial inspections also showed that levels of Barium[o], Cadmium [o], Chromium VI [o], Nickel[o], and TPH [o] in the water at this site are over Ecuadorian standards.[148]

Well Shushufindi 13: Texaco drilled Well Shushufindi 13 in 1972 and initiated oil production in the same year. The well was closed in April of 1995. Three pits were found on this site. Even though all of the pits were included in the RAP during the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[* o], Benz(a)pyrene [o], Cadmium [o], Copper [*], Chromium VI [o], Mercury[*], Naphthalene [*], Nickel[*], Pyrene[* o], Lead[*], and TPH [o*]. The judicial inspections also showed that levels of Barium[o], Benz(a)pyrene [o], Cadmium [o], PAHs [o], Indeno(1, 2, 3-cd)pyrene[o], Nickel[o], and TPH [o] in the water at this site are over Ecuadorian standards. The well was predominantly operated by Texaco.[149]

Well Shushufindi 24: Texaco drilled Well Shushufindi 24 in 1972 and initiated oil production in the same year. Three pits were found on this site. Two pits were included in the RAP. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*o], Benz(a)pyrene[o], Cadmium[o*], Copper[*], Chromium[*], Chromium VI[o], PAHs[o], Mercury[*], Naphthalene[*], Nickel[*o], Pyrene[*o], TPH[o*], Vanadium[*], and Zinc[o]. The judicial inspections also showed that levels of Barium[o], Benz(a)pyrene[o], Cadmium[o], PAHs[o], Indeno(1, 2, 3-cd)pyrene[o], and Nickel[o] in the water at this site are over Ecuadorian standards.[150]

[148] Exceedances indicated by " * " were found in the Well Shushufindi 8 Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Shushufindi 8 Expert Report of Xavier Grandez, an expert nominated by the Plaintiffs.

[149] Exceedances indicated by " * " were found in the Well Shushufindi 13 Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Shushufindi 13 Expert Report of José Robalino, an expert nominated by the Plaintiffs.

[150] Exceedances indicated by " * " were found in the Well Shushufindi 24 Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " o " were found in the Well Shushufindi 24 Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

Well Shushufindi 45A: Texaco drilled Well Shushufindi 45A in 1973 and initiated oil production in 1974. Eight pits were found on this site. Two pits were initially included in the RAP but they were not remediated because they were being used, by the community and by Petroproduccion. Later, two more pits were included in the remediation. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*o], Cadmium[o], Copper[*], Chromium VI[o], PAHs[o], Naphthalene[*], Nickel[o] , Pyrene[*] , TPH[o*], Vanadium[*], and Zinc[o]. The judicial inspections also showed that levels of Barium[*o], Benzene[*], Benz(a)pyrene[o], Cadmium[o], PAHs[o], Indeno(1, 2, 3-cd)pyrene[*], Nickel[o], TDS[*], and TPH[o] in the water at this site are over Ecuadorian standards.[151]

Well Shushufindi 67: Texaco drilled Well Shushufindi 67 in 1986 and initiated oil production in the same year. Two pits were found on this site, and both of them were included in the RAP. During the Judicial Inspections the following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Cadmium[o*], Copper[*], Pyrene[*], and TPH[o*]. The judicial inspections also showed that levels of Barium[o], Cadmium[o], Chromium VI[o], PAHs[o], Nickel[o], and TPH[o] in the water at this site are over Ecuadorian standards.[152]

Well Yuca 2B: Texaco drilled Yuca 2B Well in 1979 and began oil production there in 1980. Four pits were found during Judicial Inspection of this well. Two of the four pits were included in the RAP. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benz(a)anthracene[o], Cadmium[*], Copper[*], PAHs[o], Naphthalene[*o], Pyrene[*o], TPH [*o], and Zinc[o]. The judicial inspections also showed that levels of TPH[o] in the water at this well are over eighteen times Ecuadorian standards.[153]

Well Shushufindi 48: Drilling at Shushufindi 48 Well was initiated by Texaco in 1974 and oil production there began in 1986. Five pits were found during Judicial Inspection. Four were part of the RAP. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[*], Benz(a)anthracene[*], Benzo(a)pyrene[*], Cadmium[*], Copper[*], Naphthalene[*], Pyrene[*], Toluene[*], and TPH[*o]. The judicial inspections also showed that levels of Barium[o], Copper [o], Chromium VI[o], Nickel[o], Lead[o], and Zinc[o] in the water at this well are over Ecuadorian standards.[154]

---

[151] Exceedances indicated by " * " were found in the Well Shushufindi 45A Report of Jorge Salcedo, an expert nominated by Chevron; exceedances indicated by " º " were found in the Well Shushufindi 45A Expert Report of Amaury Suárez, an expert nominated by the Plaintiffs.

[152] Exceedances indicated by " * " were found in the Well Shushufindi 67 Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " º " were found in the Well Shushufindi 67 Expert Report of Xavier Grandez, an expert nominated by the Plaintiffs.

[153] Exceedances indicated by " * " were found in the Yuca 2B Well Report of Jorge Salcedo, an expert nominated by Chevron; exceedances indicated by " º " were found in the Yuca 2B Well Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

[154] Exceedances indicated by " * " were found in the Shushufindi 48 Well Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " º " were found in the Shushufindi 48 Well Expert Report of Charles Calmbacher, an expert nominated by the Plaintiffs.

Well Shushufindi 38: Texaco began drilling at Shushufindi 38 Well in 1974 and began oil production there in 1975. The Well was closed by Texaco in February de 1984. During Judicial Inspection, three pits were found at this well. The following chemicals were found to exceed Ecuadorian standards for soil contamination: Barium[o], Benzo(a)pyrene[o], Chromium VI[o], PAHs[o], Naphthalene[o], Nickel[*o], Pyrene[o], TPH[o], and Vanadium[*]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[o], Cadmium[o], PAHs[o], Indeno(1, 2, 3-cd)pyrene[o], and TPH[o] in the water at this well are over Ecuadorian standards. TPH levels in soil exceeded standards by over four hundred times.[155] Shushufindi 38 Well was operated exclusively by Texaco.

Well Shushufindi 27: Drilling at Shushufindi 27 Well was initiated by Texaco in 1973 and oil production the same year. Five pits were found during Judicial Inspection. Even though three pits on this well were part of the RAP, the inspection revealed soil contamination levels above Ecuadorian standards. The following chemicals were found to exceed the standards for soil contamination: Barium[*o], Benzo(a)pyrene[o], Cadmium[*], Copper[*], Chromium VI[o], PAHs[o], Naphthalene[*o], Pyrene[*o], TPH[*o], Vanadium[*], and Zinc[o].[156]

Well Shushufindi 25: Texaco initiated drilling at Shushufindi 25 Well in 1973 and started oil production the same year. Four pits were found during Judicial Inspection. Three out of the four pits were subject to complete remediation and one pit was only partially remediated. Although each pit was remediated to some extent, the inspection revealed both soil and water contamination levels above the Ecuadorian standards. The following chemicals were found to exceed the standards for soil contamination: Barium[*], Benzo(a)pyrene[o], Cadmium[*o], Copper[*], Chromium VI[o], PAHs[o], Naphthalene[*], Nickel[*], Pyrene[o], Lead[o], TPH[*o], Vanadium[*], and Zinc[*o]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[o], Cadmium[o], PAHs[o], Nickel[o], and TDS[*] in the water at this well are over Ecuadorian standards.[157]

[155] Exceedances indicated by " * " were found in the Shushufindi 38 Well Report of Jorge Salcedo, an expert nominated by Chevron; exceedances indicated by " º " were found in the Sushifindi 38 Well Expert Report of Amaury Suárez, an expert nominated by the Plaintiffs.

[156] Exceedances indicated by " * " were found in the Shushufindi 27 Well Report of Ernesto Baca, an expert nominated by Chevron; exceedances indicated by " º " were found in the Sushifindi 27 Well Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

[157] Exceedances indicated by " * " were found in the Shushufindi 25 Well Report of Jorge Salcedo, an expert nominated by Chevron; exceedances indicated by " º " were found in the Sushifindi 25 Well Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

Well Shushufindi 21: Texaco began drilling at Shushufindi 21 Well in 1973 and began oil production there the same year. Two pits were found during the Judicial Inspection. Both pits were part of the RAP and subjected to complete remediation. Despite this, chemical contamination levels were over Ecuadorian standards for both soil and water contaminants. The following chemicals were found to exceed the standards for soil contamination: Barium[*o], Benz(a)anthracene[o], Benzo(a)pyrene[o], Cadmium[*], Copper[*], Chromium VI[o], PAHs[o], Naphthalene[o], TPH[o], Vanadium[*], and Zinc[o]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[o], PAHs[o], Indeno(1, 2, 3-cd)pyrene[o], Nickel[o], and Zinc[o] in the water at this well are over Ecuadorian standards. The levels of Nickel in water samples exceeded much more than one hundred times the Ecuadorian standards.[158]

Well Shushufindi 18: Texaco initiated drilling at Shushufindi 18 Well in 1973 and began oil production there the same year. This Well was closed by Texaco in March of 1985. Two pits were found during the inspection. One of these pits was part of the RAP and subject to complete remediation. The judicial inspection revealed the following soil chemical levels exceeded the Ecuadorian standards: Benzo(a)pyrene[o], Cadmium[o], Chromium VI[o], PAHs[o], Naphthalene[*o], Nickel[o], Pyrene[o], TPH[*o], Vanadium[*], and Zinc[o]. The judicial inspections also showed that levels of Barium[o], Benzo(a)pyrene[o], Cadmium[o], PAHs[o], Nickel[o], TPH[o], and Zinc[o] in the water at this site are over Ecuadorian standards. In fact, soil levels of benzo(a)pyrene exceeded the standard by much more than 100 times and soil levels of TPH were more than 300 times over. Well Shushufindi 18 was operated only by Texaco.[159]

Well Shushufindi 8: Drilling at Well Shushufindi 8 was initiated by Texaco in 1972. The same year, Texaco initiated oil production at the well. Four pits were found at this well during Judicial Inspection. All wells at this site were subjected to the RAP and all but one was completely remediated. The pit that was not remediated was found not to have been impacted by contamination. Nonetheless, judicial inspection revealed exceedances in both soil and water contamination at Shushufindi 8. The judicial inspection revealed the following chemical levels in soil exceed the Ecuadorian standards: Barium[*], Cadmium[o], Copper[*], and TPH[*o]. The judicial inspections also showed that levels of Barium[o], Cadmium[o], Chromium VI[o], PAHs[o], Nickel[o], and TPH[o] in the water at this site are over Ecuadorian standards.[160]

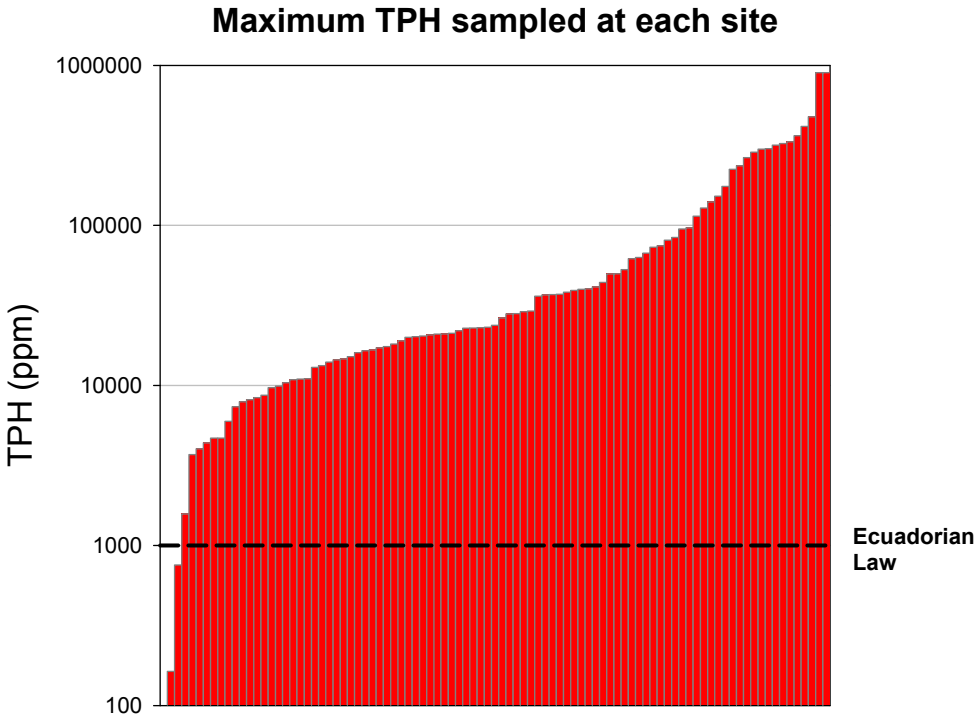
* * *

[158] Exceedances indicated by " * " were found in the Shushufindi 21 Well Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " º " were found in the Sushifindi 21 Well Expert Report of Fransisco Viteri, an expert nominated by the Plaintiffs.

[159] Exceedances indicated by " * " were found in the Shushufindi 18 Well Report of Jorge Salcedo, an expert nominated by Chevron; exceedances indicated by " º " were found in the Sushifindi 18 Well Expert Report of Luis Villacreces, an expert nominated by the Plaintiffs.

[160] Exceedances indicated by " * " were found in the Well Sushufindi 8 Report of Gino Bianchi, an expert nominated by Chevron; exceedances indicated by " º " were found in the Well Sushufindi 8 Expert Report of Xavier Grandez, an expert nominated by the Plaintiffs.

The data is overwhelming and unassailable. Both Plaintiffs' and Chevron's experts found serious contamination at every single site inspected. The TPH numbers are startling. The soil TPH results for the 93 sites that were investigated during the trial are also shown graphically in Figure [#]. The figure shows that 97% of the sites have TPH that exceeds the Ecuador standard of 1,000 ppm TPH. Concentrations at a vast majority of the sites are greater than 10,000 ppm TPH, and many sites have TPH in excess of 100,000 ppm TPH.



2. Chevron's *Own* Data Proves Plaintiffs' Case

(a) *Texaco's Internal Audits*

The grossly substandard nature of Texaco's operation in Ecuador has been well documented in the company's own internal audit reports. In 1992, as Texaco was preparing to transfer its full ownership interest in the oil concession to PETROAMAZONAS, two separate international consulting firms were retained to provide environmental audits in the installations located in the Napo Concession's territory: HBT Agra, Ltd., which was named the Environmental Audit consultant jointly by Texaco and Petroecuador, and Fugro-McClelland (West), Inc., which was retained independently by Texaco to perform a parallel audit. Each of these audits found extensive evidence of the recklessness and disregard for the environment that characterized Texaco's operations in Ecuador from 1964 through 1990.

The "Environmental Audit Report" prepared by HBT Agra, Ltd. ("HBT Agra") was direct in its assessment of Texaco's operations in Ecuador, stating that "Oilfield development and production activities have caused contamination of soil and water at locations throughout the concession. Contamination of soil and water was observed at well sites, production stations and along roadways, flowlines and secondary pipelines."[161] Over the course of some 423 pages, HBT Agra paints a grim picture of Texaco's negligence and failure to take any meaningful steps to control or mitigate the oil concession's impact on the environment. HBT Agra noted, among other things that "no groundwater monitoring program was in place prior to 1990 at any of the stations," that "[wastewater is] discharge[d] into nearby streams" and that "no testing is conducted on wastewater prior to disposal."[162] HBT Agra further noted that "prior to 1990, no spill prevention methods were in place, and oil spill material…is disposed of into the produced water stream."[163] HBT Agra found "oil emulsion and produced water is discharged into a local creek or river or in some instances directly into the jungle" and "produced water has historically not been tested prior to disposal."[164] HBT Agra further observed that "prior to 1990 well pits were not maintained" and that "protection of the surface water quality was reportedly not considered during exploration drilling."[165]

[161] Cuerpo 98, Foja 10827: HBT AGRA (Oct. 1993),. a

[162] Cuerpo 98, Foja 10814: HBT AGRA (Oct. 1993),.

[163] Cuerpo 98, Opposite side of Foja 10815: HBT AGRA (Oct. 1993).

[164] Cuerpo 98, Foja 10814: HBT AGRA (Oct. 1993),.

[165] Cuerpo 98, Opposite side of Foja 10816: HBT AGRA (Oct. 1993).

Notably, despite Chevron's present-day protests that its Ecuadorian operations were conducted responsibly, nowhere in the lengthy audit report is there any mention of any effective programs, infrastructure developments or other efforts undertaken by Texaco to mitigate or eliminate the environmental impact of the its oil extraction operations. In fact, the HBT Agra report compiled a list of Ecuadorian laws or regulations that Texaco's oilfield operations had probably violated. Among these norms is the Law for Prevention and Control of Environmental Pollution, passed in May 1976, which prohibits "without abiding by the corresponding technical standards and regulations, the expulsion of pollutants into the atmosphere or discharging into it contaminants that, in the judgment of the Ministry of Health may prejudice health and human life, flora, fauna and resources or assets of the state or of private persons or that may cause injury." (Art. 11) It also prohibits "discharging, without abiding by the corresponding technical standards and regulations residual waters that may contain noxious pollutants that are dangerous to human health, fauna and properties, into the sewage systems, the ravines, ditches, rivers, natural or artificial lakes, or to the sea, as well as to infiltrate these waters into the ground (art. 16)."[166] The report decided that Texaco must resolve "compliance issues" related to, among others, the contamination of soil from seepage from pits, the contamination of water caused by the disposal of produced water, and the contamination of air from the burning of oily waste.[167] This assessment of Texaco's potential liability to comply with Ecuadorian standards does not come from the Plaintiffs; HBT Agra made that assessment before the *Aguinda* lawsuit was even filed in the US courts.

Texaco, of course, had full knowledge that its operation in Ecuador was substandard, and that the independent audit would identify the gross negligence and recklessness with which it had operated for more than twenty-six years. It is thus correct to presume that, in an effort to mitigate the impact of the HBT Agra report, Texaco separately and independently retained Fugro McClelland, Inc. to perform a parallel audit.[168] However, the Fugro McClelland audit is just as damning as the HBT Agra report. In the October 1992 report, Texaco's own environmental auditors noted:

[166] Cuerpo 98, Foja 10803: HBT AGRA (Oct. 1993).

[167] Cuerpo 98, Foja : HBT AGRA (Oct. 1993).

[168] Texaco presumably retained its own, separate auditing firm out of concern that the company could not control or influence the joint Environmental Audit consultant, HBT Agra. The Executive Summary of the Fugro-McClelland audit report notes that the parallel audit was performed because, "During the course of selection of the joint Environmental Audit consultant, Texaco identified the need to ensure a balanced evaluation of their operations from 1964 to 1990." Accordingly, Fugro-McClelland was hired to "prepare a report that independently examined the Ecuadorian laws and regulations and " accepted in general" international oil industry practices in the tropical forest areas that were known to exist during this time frame." Cuerpo 97, Foja 10645: Fugro McClelland (1992).

> The audit identified hydrocarbon contamination requiring remediation at all production facilities and a majority of the drill sites . . . . Various degrees of crude oil contamination existed on many of the well sites visited. . . . All produced water from the production facilities eventually discharged to creeks and streams except for one facility which used a percolation pit. None of the discharges were registered with the Ecuadorian Institute of Sanitary Works (IEOS) as required by the Regulations for the Prevention and Control of Environmental Pollution related to Water Resources (1989).[169]

Fugro-McClelland's observations about Texaco's reckless oil practices were not limited to these observations. Much as the HBT Agra report stated, the Fugro-McClelland report found multiple instances where Texaco's reckless operations led to serious impacts on the environment. Fugro-McClelland noted that "an oil spill prevention and control plan was not identified. The audit teams also did not observe any spill control or containment equipment" and that "in general, spills of hydrocarbons and chemicals were not cleaned up. Instead, they were covered with sand."[170] Fugro-McClelland determined that "the water produced from TEXPET's operations have historically been discharged into surface waters" and that "from 1974 through 1989, the Ecuadorian law and regulation prohibited the discharge of pollutants that are dangerous to the environment and human health."[171] Fugro-McClelland also concluded that "spills which judged as degraded or heavily degraded were attributed to TEXPET's operations from 1964 to 1990. In addition, degraded and fresh spills which were the result of improper equipment design were considered the responsibility of TEXPET."[172]

Plaintiffs did not say this –Chevron's handpicked auditors did.

(b) *Chevron's Early Sampling Results*

As outlined in the judicial site inspection summary above, Chevron's own technical experts often found levels of toxins significantly exceeding Ecuadorian limits throughout the process. For reasons described below, some of the most significant exceedances found by Chevron occurred in the *early* part of the inspection process.

[169] Section 97, Both sides of sheet 1064: Fugro McClelland (1992) (emphasis added).

[170] Section 97, Back of sheet 10682, 2nd Para.: Fugro McClelland (1992).

[171] Section 97, Back of sheet 10675: Fugro McClelland (1992).

[172] Section 97, of sheet 10726: Fugro McClelland (1992).

For instance, Sacha 94 was the fourth site examined during the judicial inspections. Sacha 94 was a Texaco-only site – Petroecuador never took over operations there. Chevron's own technical expert, Ernesto Baca, reported a soil TPH of 8,700 mg/kg at Pit 2 of Sacha 94 – over *eight times* the Ecuadorian threshold.[173] Chevron's expert also reported a soil TPH of 5,600 at Pit 1 of Sacha 94.[174] Worse yet, both Pit 1 and Pit 2 of Sasha 94 were certified by Texaco to be "completely remediated" in an effort to fraudulently secure a responsibility release from the Ecuadorian government.[175] With regard to, Sacha 57, the eleventh site visited during the judicial inspections, Chevron's expert, Gino Bianchi, found that 6 samples exhibited TPH exceedances – one of these samples, taken at Pit 2, revealed TPH levels of 8,144 mg/kg, again, over eight times the Ecuadorian threshold.[176] Indeed, like Sacha 94, Sacha 57 was operated solely by Texaco. And again, like Sacha 94, Chevron confirmed that Sacha 57 had been "completely remediated."[177] Chevron has no excuse for these findings. Chevron cannot blame these findings on Plaintiffs' sampling techniques nor can they blame Petroecuador. **Chevron's own data proves the Plaintiffs' case.**

Indeed, Chevron's discovery of TPH exceedances throughout the inspections, although significantly less frequent than the Plaintiffs', remains substantial. Chevron's TPH data shows 91% of well sites with TPH > 100 ppm (the U.S. standard); 79% with TPH > 1,000 ppm (the Ecuadorian standard), and 47% with TPH > 5,000 ppm (one of Chevron's arbitrary, false standards).

(c) *Realizing That It Is Proving its Own Liability, Chevron Changes its Sampling Methodology*

As noted above, the sampling performed by Chevron's technical experts in the early part of the trial revealed massive chemical exceedances. It is clear that Chevron quickly realized that its own experts were proving the Plaintiffs' case, and ordered a new, scientifically bankrupt sampling protocol to minimize the exceedances its experts' found.[178] In 2006, scientists Dr. Ann Maest, Mark Quarles, P.G., and William Powers, P.E., conducted an investigation into Chevron's sampling practices, which included visits

[173] Expert report on Site Sacha 94 by expert Ernesto Baca. Section 411 to 456, from page 460.280 to 51399.

[174] Expert report on Site Sacha 94 by expert Ernesto Baca. Section 411 to 456, from page 460.280 to 51399

[175] Expert report on Site Sacha 94 by expert Ernesto Baca. Section 411 to 456, from page 460.280 to 51399

[176] Expert report on Site Sacha 57 by expert Gino Bianchi. Section 644 to 651, from page 71089 to 72000.

[177] Expert report on Site Sacha 57 by expert Gino Bianchi. Section 644 to 651, from page 71089 to 72000.

[178] In August 2005, the Plaintiffs' held a press conference in Quito announcing that Chevron's own sampling was proving the Plaintiffs' case. It is clear that after this event, Chevron decided to further compromise the integrity of its sampling and testing protocol to avoid a negative result as much as possible. Indeed, the rate at which Chevron's experts found TPH exceedances was cut in half after this press conference, which occurred after the 22nd of 45 party site inspections. This is no coincidence.

to several former Texaco well sites in Ecuador and an analysis of technical reports submitted as part of the trial by Chevron's technical experts.[179]

These scientists concluded that: (1) Chevron's selection of sampling locations was designed to avoid finding contamination; (2) Chevron selected sampling locations outside of expected contaminant pathways in the environment around the pits; (3) Chevron inappropriately used composite soil samples in an effort to minimize contaminant concentrations; and (4) Chevron misapplied and invented self-serving contaminant standards.[180]

First, Chevron generally collected samples only at superficial levels that often did not penetrate the layer of "clean" soil that the company added during its sham remediation.[181] This top layer of soil was placed over open-air waste pits that contained hydrocarbon that was not adequately removed. Soil just below the clean layer of soil was often wet with a clear, viscous liquid that smelled strongly of petroleum hydrocarbons, even in supposedly "remediated" pits. This simple difference in choice of sampling locations explains many of the discrepancies in the analytical results. Taking this into account explains why experts for the Plaintiffs and the Court routinely found high contaminant concentrations at the same sites where Chevron experts more frequently found concentrations that were below toxic thresholds and local and international standards.

Secondly, Chevron selected sampling locations outside of expected contaminant pathways in the environment around the pits. When scientists look for the effects of contaminants, the sources of that contamination must be identified and paths from those sources to groundwater and surface water must be investigated. In the Napo Concession, the sources in many cases are the waste pits where highly toxic drilling muds, oil, and produced waters were dumped – these pits are often located on areas of higher ground that slope steeply downward to marshes or streams. It is obvious even to a layperson that the most likely pathway for movement of contaminants is downhill from the pit toward the marsh or stream. Chevron's own experts concede this point, noting that "although there isn't sufficient information to calculate the groundwater flow patterns, it is inferred that, in general, the groundwater flows slowly toward the section of the river (drainage) that is closest."[182] Nonetheless, Chevron's sampling approach almost never included taking downgradient samples. Rather, Chevron's technical experts took samples *upgradient* of the sources, an illogical approach that guaranteed a failure to find the

[179] Section 888, page 97424 - 97438.

[180] *See id*. Unless otherwise noted, all facts stated in this subsection are taken from the 2006 Report of Maest/Quarles/Powers.

[181] *See infra*.

[182] Section 757, page 83333. Sacha Central Report by John Connor expert nominated by Texaco. Page 51, Last paragraph.

contaminant pathways, and thus, supported Chevron's theory that the impacts of contaminant sources are minimal.[183]

The well site SSF-13 in the Shushufindi field perfectly illustrates this point. At a site visit on January 14, 2006, petroleum hydrocarbon contamination was obvious, by sight and smell, a few feet below the surface of a "remediated" pit and in a stream downhill from the pit.[184] When the judicial inspection took place at SSF-13, the experts for the affected communities sampled the obvious contaminated soils and stream bank sediment. The experts for Chevron instead sampled areas uphill from the pit and across the stream in a downhill area that was clearly not hydraulically connected to the pit.[185] Not surprisingly, Chevron claimed its sample results showed acceptable levels of contaminants, whereas samples collected by the Plaintiffs showed contaminant concentrations that far exceeded all pertinent standards.[186]

Third, Chevron inappropriately used composite soil samples in an effort to minimize contaminant concentrations. Rather than analyzing soil samples from different locations separately, Chevron mixed together multiple soil samples from different locations and analyzed this mixed soil as a single sample. Composite sampling can be legitimate at sites where contaminants are more homogeneously distributed. However, this type of sampling was not appropriate for this case, where toxic contaminants have been dumped in highly concentrated amounts into pits, streams, and rivers, because composite sampling will conceal the "hot spots" of contamination that are critical in evaluating the importance of sources of petroleum and metal contamination. As noted by the United States Environmental Protection Agency ("U.S. EPA"):

[183] In addition to taking uphill samples Chevron's experts also took sample far away from the site, as an example see graphic on page 4 of Luis Villacreces Cononaco 6 Report, Chevron's recorded expert took samples up to 3 kilometers away from the site.

[184] Section 678, page 74986. Shushufindi 13 Judicial Inspection Act, 28 of July 2005, Page 14.

[185] Section 1017, pages 111020-111025. Plaintiffs´ Comments to Ernesto Baca Report on Shushufindi 13.

[186] Section 834, pages 91526-91532. Shushufindi 13 Report by José Robalino expert nominated by Plaintiffs.

> Composite samples are most appropriate where a reasonable degree of variability is anticipated . . . . This is normally the case when contaminants have been distributed by airborne deposition (relatively homogeneous distribution across the site). Where localized 'hot spots" are present due to releases from process units, indiscriminate dumping, or the burying of wastes, a more specialized approach that takes these types of distribution into account is required.[187]

For its part, Chevron of course has repeatedly criticized the Plaintiffs' technical experts for their *failure* to use the composite sampling method in this case. But as noted by the U.S. EPA, it is Chevron's methodology that is flawed under the circumstances.

Fourth and finally, Chevron invented self-serving contaminant standards on an *ad hoc* basis. The U.S. E.P.A. Soil Screening Guidance ("SSG") identifies different Soil Screening Level values ("SSLs") that can apply for a given contaminant[188] Although Chevron used the SSL values for determining closure levels of many target contaminants, they conveniently avoided the SSL values when these values were not in their favor. For example, rather than using the SSL standards for barium, Chevron instead compared the measured barium results to the Louisiana 29-B "standard" of 40,000 mg/kg – almost *500 times* in excess of the appropriate U.S. EPA standard and over 50 times in excess of Ecuador's own standard. The component of the Louisiana 29-B standard that Chevron used is extremely lax and is only applied under a narrow set of circumstances where the threat to groundwater is virtually non-existent. The Chevron concession in Ecuador by contrast, is characterized by shallow groundwater and large numbers of groundwater users – that is, the local population relies on natural water sources for its water supply. To apply the foreign standard that presumes no contact with water used for human consumption in such a situation would be simply unconscionable in the context of the Napo Concession and its inhabitants – yet that is exactly what Chevron did.[189]

---

[187] US EPA, 2001. *Environmental Investigations Standard Operating Procedures and Quality Assurance Manual*, Region 4, 980 College Station Road, Athens, Georgia 30605. www.epa.gov/region4/sesd/eisopqam/eisopqam.html.

[188] US EPA, 1996. Soil Screening Guidance, User's Guide. Office of Solid Waste and Emergency Response, EPA/540/R-96/018, July. Second Edition.

[189] For example, at the Sacha-6 site, all 17 soil samples in Chevron's own report exceeded the correctly-applied U.S. E.P.A. standard for barium (82 mg/kg). [Section 166, Pages 18041-18045. Sacha 6 Report by John Connor expert nominated by Texaco] Yet by referencing only the 40,000 mg/kg Louisiana standard, Chevron's expert represents to the court that the site contains no unsafe levels of barium whatsoever. [Section 165, Page 17937. Sacha 6 Report by John Connor expert nominated by Texaco]

3. A Multitude of Other Data Proves Contamination

Separate and apart from evidence of contamination that comes from the parties themselves, the public record is replete with evidence of the extensive environmental damage caused by Texaco. This evidence includes, but is not limited to: (a) results of the sampling carried out within the framework of the Comprehensive Expert Report performed by Court-appointed expert Richard Cabrera; (b) results of the site inspections performed by Court-appointed expert Marcelo Munoz; (c) results of the site inspections performed by Court-appointed expert José Ignacio Pilamunga; (d) the report from the 1998-2001 Controlaria investigation, published in 2002; and (e) a study published by The Center for Economic and Social Rights in 1994.

(a) *The Cabrera Site Inspections*

The court-appointed expert conducted inspections at forty-five Texaco sites. One third of those sites were operated *exclusively* by Texaco – Petroecuador never took over as operator. Cabrera found chemicals in excess of the Ecuadorian standards at all but three sites. Cabrera not only tested for soil and water contamination, but he also tested for sediment contamination. His inspections revealed levels above Ecuadorian standards in all three media.[190] TPH was the most prevalent exceedance with nearly all sites demonstrating levels above standards for water, soil, and sediment TPH levels.

Barium soil contamination levels were higher than Ecuadorian standards at Well Lago Agrio 6 and Barium water contamination levels were higher than Ecuadorian standards at Well Auca 19. So, Barium exceedances were found at two sites.

Exceedances of Benz(a)anthracene in water, soil and sediment samples were found at several sites. Water exceedances were found at Well Lago Agrio 16, Well Auca 5, and Well Sacha 18. Benz(a)anthracene soil exceedances were found at Well Lago Agrio 16, Well Lago Agrio 35, Well Lago Agrio 20, Well Atacapi 1, Well Guanta 8, and Well Aguarico 5.

Sediment exceedances of Benz(a)anthracene were found at Well Lago Agrio 35, Well Aguarico 4, Well Aguarico 8, Well Aguarico 9, Well Shushufindi 56, Well Yuca 9, and Well Shushufindi 50. Therefore, exceedances of Benz(a)anthracene were found at fourteen sites.

[190] All information in the Section B.3.(a) is obtained from Section 1293, Page 139180- Section 1294, Page 139270: The Expert Report of Engineer Richard Cabrera, Annex E (March 2008).

Benzo(a)pyrene soil levels were in excess at Well Charapa 1, Well Lago Agrio 16, Well Lago Agrio 35, Well Lago Agrio 20, and Well Atacapi 1. Also, Benzo(a)pyrene sediment levels were in excess at Well Lago Agrio 1.

Exceedances of Naphthalene in soil were found at Well Charapa 1, Well Lago Agrio 1, Well Lago Agrio 12, Well Lago Agrio 16, Well Lago Agrio 35, Well Lago Agrio 20, Well Lago Agrio 5, Well Parahuacu 2, Well Parahuacu 3, Well Atacapi 1, Well Guanta 4, Well Guanta 08, Well Dureno 1, Well Aguarico 8, Well Aguarico 10, Well Sacha 18, Well Sacha 59, Well Shushufindi 35 and Well Shushufindi 46. Napthalene exceedances in sediment were found at Well Lago Agrio 35, Well Aguarico 4, and Well Shushufindi 56. So, a total of twenty one sites revealed exceedances of Napthalene.

Chromium VI exceedances in water were found at Well Lago Agrio 16. Phenanthrene exceedances were found at Well Auca 5. Pyrene sediment exceedances were found at Well Aguarico 4. The following six sites reveal exceedances above the Ecuadorian standard for Pyrene in soil: Well Charapa 1, Well Lago Agrio 16, Well Lago Agrio 20, Well Atacapi 1, Well Guanta 8, and Well Sacha 59. Nine out of forty-six sites revealed high levels of Chromium VI.

Nearly all sites revealed exceedances above the Ecuadorian standards for some form of TPH contamination. Twenty-two sites showed TPH levels above standards for water.[191] Thirty-five sites revealed TPH exceedances for soil contamination.[192] Additionally twenty-one sites exceeded levels in sediment TPH levels.[193]

Although Chevron would like to pin blame on Petroecuador, Cabrera's findings indicate the contrary. Of the many Texaco-only operated sites examined by Cabrera, only one was free of exceedances.

(b) *The Muñoz Site Inspections*

[191] Well Charapa 1, Well Lago Agrio 1, Well Lago Agrio 12, Well Lago Agrio 20, Well Guanta 08, Well Aguarico 5, Well Aguarico 8, Well Aguarico 9, Well Aguarico 10, Well Shushufindi 55, Well Shushufindi 56, Well Ron 1, Well Auca Sur 1, Well Auca 7, Well Auca 19, Well Auca 5, Well Yulebra 1, Well Yuca 9, Well Sacha 29, Well Sacha 56, Well Sacha 18, Well Shushufindi 50.

[192] Well Charapa 1, Well Lago Agrio 1, Well Lago Agrio 12, Well Lago Agrio 16, Well Lago Agrio 35, Well Lago Agrio 20, Well Lago Agrio 5, Well Parahuacu 2, Well Parahuacu 3, Well Atacapi 1, Well Atacapi 5, Well Guanta 4, Well Guanta 08, Well Dureno 1, Well Aguarico 5, Well Aguarico 8, Well Aguarico 10, Well Shushufindi 46, Well Shushufindi 55, Well Ron 1, Well Auca Sur 1, Well Rumiyacu 1, Well Auca 15, Well Auca 7, Well Auca 19, Well Auca 5, Well Sacha 29, Well Sacha 56, Well Sacha 18 , Well Sacha 59, Well Shushufindi 35, Well Shushufindi 2, Well Shushufindi 33 and Well Shushufindi 46.

[193] Well Lago Agrio 1, Well Lago Agrio 35, Well Atacapi 5, Well Aguarico 5, Well Aguarico 4, Well Aguarico 8, Well Aguarico 9, Well Aguarico 10, Well Shushufindi 55, Well Shushufindi 56, Well Ron 1, Well Cononaco 3, Well Auca Sur 1, Well Auca 7, Well Auca 5, Well Yulebra 1, Well Yuca 9, Well Sacha 56, Well Sacha 59, Well Shushufindi 50 and Well Shushufindi 32.

Marcelo Muñoz was a Court-appointed expert who took samples at several Texaco stations and wells. In fact, Muñoz was the only expert to take samples at Well Auca 17, Well Auca 19, Auca Sur Station, Culebra Station, Guanta Central Station, Yuca Central Station, Yulebra Station and Auca Central Station. Muñoz's work reveals exceedances at each site tested.

TPH levels in soil exceeded Ecuadorian standards at Well Auca 17, Well Auca 19, Yuca Central Station and Yulebra Station. Chromium, Lead, and Vanadium levels in water exceeded standards at Well Auca 17, Well Auca 19, Auca Sur Station, Yulebra Station, Guanta Central Station, Yuca Central Station and Auca Central Station. Additionally, Barium levels in soils at Well Auca 19 and Barium levels in soil at Culebra and Auca Central Stations exceeded the Ecuadorian standards. At each and every one of the sites, chemical exceedances were detected.[194]

(c) *The Pilamunga Site Inspections*

Court appointed expert José Ignacio Pilamunga performed an inspection of one site, Well Aguarico 2. Texaco drilled the well in 1970 and started operations there in 1974. This well was closed in 1990. Therefore, it was operated exclusively by Texaco. Aerial photographs reveal three pits at this site.

During the Judicial Inspection, Pilamunga found exceedances in the levels of Cadmium and TPH in the soil. Based on his sampling, Pilamunga concluded that the three pits and their surrounding areas were not adequately remediated and should be the subject of further remediation applying adequate standards and techniques. Pilamunga also notes that a 2004 study conducted by CORPCONSUL Cía. Ltda concluded that "the presence of oil under where the pits had been is obvious. The appearance of this oil that affects half a hectare of land. By inserting the machete we check the presence of oil, which pollutes the surrounding estuary, causing the problems described."[195]

(d) *The Controlaria Investigation*

In 2002, the General Controller's Office published an investigation into the contract that released Texaco from liability under the Remediation Action Plan ("RAP").[196] The objective of the investigation was two-fold: (1) to determine whether the

[194] Judicial Inspection Report of court appointed expert Marcelo Muñoz for Well Auca 17; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Well Auca 19; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Auca Sur Station; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Culebra Station; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Guanta Central Station; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Yuca Central Station; Judicial Inspection Report of court appointed expert Marcelo Muñoz for Yulebra Station; and Judicial Inspection Report of court appointed expert Marcelo Muñoz for Auca Central Station.

[195] Judicial Inspection Report of court appointed expert José Ignacio Pilamunga for Well Aguarico 2. Section 1311 pages 140.968 to 140.996

[196] Section 931, Page 102076: Special Report on the Contract for the Execution of Environmental Repair Work and Release from Obligations, Responsibilities and Suits executed on May 4, 1995 between Minister of Energy and Mining representing the government of Ecuador, Petroecuador CEO and Vice President of Texaco Petroleum Company Texpet (2002).

parties had fulfilled their contractual obligations under the RAP and (2) to verify that Texaco had met its socio-economic compensatory obligations after ending its operations in the Amazon region.[197] A multidisciplinary committee of engineers and auditors (the "Committee") performed a comprehensive analysis from 1995 to 2001.[198] This analysis included a review of the legal validity of the initial contract, a determination of what obligations Texaco had and had not fulfilled under the contract, and scientific sampling of various sites to determine whether the remediation was effective.[199]

The Committee concluded that the contract contained a series of omissions and technical deficiencies that affect the interests of Ecuador.[200] The Committee also concluded that Texaco did not adequately meet the contractual requirements regarding its execution of the RAP.[201] Specifically, remediation was lacking in the areas of re-vegetation, treatment of residual water and the cleaning of pits, platforms and oil spills in estuaries and rivers.[202] Some pits that were included in the RAP had not been remediated and even at some of the pits that were remediated, surface oil was found.[203]

Critically, in reaching its conclusion that the remediation contract was rife with technical deficiencies and that Texaco's feeble remediation did not even meet the flawed contractual requirements, the Committee examined scientific testing of samples taken at various sites subject to Texaco "remediation."[204] The Committee's first samplings were taken in April 1997 and consisted of twenty soil samples from various sites.[205] It is important to note that at this time, any sites that had not been exclusively operated by Texaco had been operated by Petroecuador for only a very limited amount of time. The results showed that 85% of the samples had exceeded permissible hydrocarbon levels according to international standards and 70% of the samples exceeded limits imposed be the RAP.[206] Of the twenty sites included in this sampling, fourteen had been approved by the Ministry of Energy and Mining even though they did not meet the requirements of the RAP.[207] The second set of samples were taken in August 1998.[208] 89% of the samples taken during the second inspection indicated TPH levels in excess of international standards and 78% were above the standards established in the

[197] Section 931, Page 102076: Special Report (2002).

[198] Section 931, Page 102076: Special Report (2002).

[199] Section 931, Page 102072-102182: Special Report (2002).

[200] Section 931, Page 102144: Special Report (2002).

[201] Section 931, Page 102144: Special Report (2002).

[202] Section 931, Page 102144: Special Report (2002).

[203] Section 931, Page 102144: Special Report (2002).

[204] Section 931, Page 102110: Special Report (2002). Samples were analyzed using infrared spectrophotometry at the Suelos LABSU Laboratory at Colegio Camboa del Coca.

[205] Section 931, Page 102110: Special Report (2002).

[206] Section 931, Page 102110: Special Report (2002).

[207] Section 931, Page 102110: Special Report (2002).

[208] Section 931, Page 102112: Special Report (2002).

RAP.[209] The third inspection took place in August 2000.[210] During this inspection, twenty-four pits that were included in the RAP were sampled.[211] However, seventeen of these pits had not been remediated because Texaco claimed that they had been modified by Petroecuador after June 1990.[212] The inspections revealed surface crude at all sites.[213] Finally, the fourth inspection also revealed a significant percentage of exceedances.[214] Of the 225 pits that were slated for remediation in the RAP, only 158 pits were actually remediated.[215] Sampling of these pits revealed 84.62% had chemical soil levels in excess of permissible standards.[216] Notably, 100% of the samples exceeded standards for chemical water levels.[217]

Texaco failed to comply with the very favorable terms of the RAP by not remediating all of the sites included in the plan. Furthermore, even those sites it claimed to have remediated were found to exceed international standards of chemical levels and the very standards agreed to in the RAP.

(e) *The Center for Economic and Social Rights Report*

The Center for Economic and Social Rights' ("CESR") publication, "Rights Violations in the Ecuadorian Amazon: The Human Consequences of Oil Development,"[218] documents the works of the CESR group of doctors, scientists, and lawyers that conducted studies of the eastern area of the Amazon in 1994.[219] This study is of particular interest because in 1994, any Texaco sites that had not been closed had been operated by Petroecuador for only a short time. The CESR collected samples from drinking, bathing, and fishing waters used by local communities, as well as samples from wastewater released from oil facilities.[220] Testing of the samples taken revealed that wastewater samples at the point of emission into the environment contained extremely high levels of toxic compounds[221], that PAH levels in drinking, bathing and fishing water samples were 10 to 1,000 times greater than U.S. EPA safety guidelines, and that PAH

[209] Section 931, Page 102112: Special Report (2002).

[210] Section 931, Page 102113: Special Report (2002).

[211] Section 931, Page 102113: Special Report (2002).

[212] Section 931, Page 102113: Special Report (2002).

[213] Section 931, Page 102113: Special Report (2002).

[214] Section 931, Page 102116; Special Report (2002).

[215] Section 931, Page 102117; Special Report (2002).

[216] Section 931, Page 102117; Special Report (2002).

[217] Section 931, Page 102117; Special Report (2002).

[218] Hereafter referred to as "CESR Report."

[219] "Rights Violations in the Ecuadorian Amazon: The Consequences of Oil Development," by Christopher Jochnick of the CESR, 1 (March 1994).

[220] CESR (1994) at ix.

[221] CESR (1994) at ix; Toxic compounds: polycyclic aromatic hydrocarbons ("PAHs") and volatile organic compounds ("VOCs").

contaminant patterns in drinking, bathing and fishing waters matched waste water sources at nearby oil facilities.[222]

The total concentration of PAHs found in drinking water ranged from 32.8 to 2,792.9 ng/L.[223] The EPA's safety guideline for PAHs levels was 0 mg/L and corresponded "to an increased estimated risk of developing cancer between 1/100,000 and 1/1,000."[224] While volatile organic compounds ("VOCs") were not detected in most drinking water samples, toluene was present in samples from San Pablo 6 &7, Coca 8, and Sachas 10 & 11.[225] High concentrations of benzene were also detected with samples as high as 2500 mg/L[226]. Benzene is a substance known for its toxicity and cancerous effects.

Produced water samples from most separation ponds contained levels of VOCs and PAHs that far exceeded EPA standards.[227] Strong concentrations of benzene, toluene, ethylbenzene and xylenes were found in samples from Shushufindi North Station, Shushufindi South Station, and Sachas Station.[228] Concentrations ranged from 46,500 mg/L to 46,500 mg/L, with concentrations of 49,931 mg/L for some samples taken from covered separation ponds.[229] Additionally, bathing and fishing water samples revealed concentration levels ranging between 40 mg/L and 1,486 mg/L. Two of these sites were also used for drinking water.[230]

[222] CESR (1994) at ix.

[223] CESR (1994) at 18 and Appendix V. Drinking water samples were taken from San Pablo, 128 km South of Coca, Shushufindi, and Sancha.

[224] CESR (1994) at 18.

[225] CESR (1994) at 18.

[226] CESR (1994) at 51.

[227] CESR (1994) at 18.

[228] CESR (1994) at 18.

[229] CESR (1994) at 18.

[230] CESR (1994) at 19.

The CESR Report also discussed two government studies that took place in 1987.[231] One of the studies included 187 wells operated by Texaco and found that "crude oil was regularly dumped into woods, farmlands and bodies of water and that 80% of the waste pits were poorly constructed and constituted a permanent source of contamination."[232] The second study analyzed results from 36 samples taken from rivers and streams near production sites.[233] The results revealed high levels of grease and oil.[234] A deficit of dissolved oxygen in the majority of water samples was also found to have seriously harmed the aquatic ecosystem.[235] Both reports show these sites, exclusively operated by Texaco, were contaminated well before their operations might have been taken over by Petroecuador.[236]

The CESR Report indicates not only that Texaco sites showed high levels of contamination in 1994, but also that contamination of the region due to Texaco's oil production had been established as early as 1987.

C. Chevron's Sham Remediation

1. Chevron's Desire for a Quick-Fix to Undermine the *Aguinda* Litigation in the U.S.

In 1993, the Amazon communities filed a federal class-action lawsuit against Texaco in the United States District Court for the Southern District of New York. Plaintiffs "sought money damages under theories of negligence, public and private nuisance, strict liability, medical monitoring, trespass, civil conspiracy, and violations of the Alien Tort Claims Act," as well as "extensive equitable relief to redress contamination of the water supplies and environment."[237] From the start of the lawsuit, Texaco fought vigorously to lay venue for the case in Ecuador. Ultimately, the case was dismissed on the condition that Texaco would consent to the jurisdiction of the courts of Ecuador.

[231] DIGAMA cited in CESR (1994) at 6; CEPE report cited in CESR at 6.

[232] DIGAMA cited in CESR (1994) at 6

[233] CEPE report cited in CESR (1994) at 6.

[234] CEPE report cited in CESR (1994) at 6.

[235] CEPE report cited in CESR (1994) at 6.

[236] DIGAMA cited in CESR (1994) at 6; CEPE report cited in CESR (1994) at 6.

[237] *Aguinda v. Texaco, Inc.*, 303 F.3d 470, 473 (United States, 2d Cir. 2002).

The U.S. lawsuit alarmed Texaco. Just after that lawsuit commenced – but long before the suit was re-filed in Ecuador – Texaco attempted to convince the world that it had remediated its widespread contamination of the Ecuadorian rainforest. That remediation was a sham from beginning to end. First, there was fraud in the negotiation – Texaco hid pits and caused most to be excluded from the so-called remediation. Second, the contracts regarding the so-called remediation were unlawful – the 5,000 ppm standard contemplated by the contracts was not a legal standard, but rather an arbitrary value established by the company. Third, the so-called remediation effort itself was non-existent. And finally, Texaco falsely certified that sites were "completely remediated" when they were most certainly not. Nothing tells this story better than the evidence: it confirms that the contamination which existed before the "remediation" still exists today.

2. The Remediation Contract: Inherently Flawed from the Start

In May 1995, Texaco entered into a contract with the Government of Ecuador for conducting environmental remediation in the Napo Concession.[238] The remediation contract entered into between the Government of Ecuador and Texaco doomed any possibility of actual remediation. Texaco conspired with certain Government officials to ensure that its remediation obligations under the contract could be satisfied even if no remediation occurred. The result: Texaco's widespread contamination would remain in place and, in exchange, Texaco would receive a "full release" of liability from the Government of Ecuador.

(a) *Even the evaluation methods that texaco used for the remediation were misleading and fraudulent.*

To avoid having to perform an effective (and costly) remediation, Texaco ensured the remediation contract was fatally flawed. Texaco insisted that the contract allow the company to use a testing method that would hinder the possibility of accurately evaluating the "remediation" results. Moreover, such method – according to the standards chosen by the company – makes it **impossible** to comply with the "remediation" objectives. The results it shows are simply false.

Texaco was required to conduct soil treatment if the initial TPH result was higher than 5,000 ppm under the agreement. After soil treatment was completed, the acceptance criterion was a soil leachate concentration of 1,000 mg/L TPH (for remediation conducted before March 1997). The leachate test used was a Toxicity Characteristic Leaching Procedure (TCLP). After March 1997, Texaco's contractors had to meet both the 1,000 mg/L TPH leachate concentration and the 5,000 ppm soil TPH value.[239]

[238] Contract between Ministry of Energy and Mining (Ecuador) and Texaco, Inc (May 4, 1995).

[239] "Remedial Action Project Oriente Region, Ecuador," Final Report, Vol. I, Woodward-Clyde at 3-8(May 2000).

The TCLP test utilized by Texaco is scientifically unsupportable, and the standard is impossible to fail. The TCLP test was designed to determine if a waste should be classified as hazardous under the Resource Conservation and Recovery Act and also to simulate the leaching of constituents into groundwater under the acidic conditions found in municipal solid waste landfills.[240] The test was not created to evaluate oil-related contamination. However, Texaco used it to certify the success of its remediation. A systematic review of closure standards for petroleum releases used in the United States in 1990 and 1994 indicated that **not one of the 50 U.S. states used the TCLP method for determining acceptable levels of TPH in soil.**[241] Indeed, U.S. E.P.A. states that:

> The TCLP might not be appropriate for analyzing oily wastes. Oil phases can be difficult to separate (e.g., it might be impossible to separate solids from oil), oily material can obstruct the filter (often resulting in an underestimation of constituents in the leachate), and oily materials can yield both oil and aqueous leachate which must be analyzed separately.

The inappropriateness of the TCLP test for TPH is illustrated by the fact that the U.S. E.P.A. does not even set a TCLP-based regulatory limit for TPH.[242] Rather, for oily wastes (such as those left in the Concession area), U.S. E.P.A. recommends the use of different methods, such as Method 1330 (Extraction Procedure for Oily Wastes), a procedure that measures hazardous components in oil, on soil, and in aqueous leachate. Texaco's use of the TCLP test allowed Chevron to find only a tiny fraction of the contamination actually existing in purportedly remediated soils.[243] Indeed, one could have poured crude oil onto the ground overnight and a soil sample from that ground might not fail the TCLP test.

[240] US EPA, 2006

[241] Soils, 1990, 1994.

[242] It does set TCLP-based limits for pesticides, volatile and semi-volatile organic compounds, and other chemicals for which the test is appropriate.

[243] The TCLP test only measures the amount of contamination that leaches out of the soil after a short time, rough similar to a single rainstorm event, but it severely underestimates the cumulative environmental threat posed to groundwater and downgradient surface water during the life of the pit.

The contract also set the TPH concentration in the TCLP leachate (1,000 mg/L) so high that it was **impossible** to fail the standard. Under no circumstances would a sample fail the TPH-TCLP acceptance criterion of 1,000 mg/L TPH in leachate, because even pure crude oil is much less soluble in the TCLP test solution than this level. Researchers for Chevron, among many other scientists, have shown that the maximum concentration of TPH that can be leached from oil into water is only approximately 10 mg/L.[244] The remediation verification standard in the contract is thus approximately 100 times higher than the maximum possible TPH solubility for even pure crude oil.

As will be discussed further below, the inadequacy of Texaco's 1,000 mg/L cleanup standard is demonstrated by the current data on actual soil contamination. Every soil sample tested by Texaco had less than 5 mg/L TPH by the TCLP test (5 mg/L was the detection limit in the tests they conducted), and therefore met their cleanup standard by at least a factor of 200.[245] Yet the same sites have up to 207,000 mg/kg TPH in the soil, which is over 20% oil its total weight. Soils with very high TPH concentrations will leach more TPH than those with low TPH concentrations, but the TCLP results did not reflect this, showing that the test results were worthless: they did not determine whether petroleum contamination will leach from the affected soils.

(b) *The Double Standard: The soil-based cleanup standard was higher than all relevant U.S. cleanup standards at the time*

The action limit and post-remediation standard (after March 1997) of 5,000 ppm also allowed Texaco to comply with the contract but left severe damages in place in the Concession. Texaco stated that the 5,000 ppm closure criterion was established by reviewing a number of international regulations, and that this value was a "more conservative and rigorous limit" than the regulations they reviewed.[246] As proof they cited an unpublished Canadian document and an American Petroleum Institute ("API") guidance document for mixing oil-based mud solids in offsite disposal facilities.[247] Neither standard has any applicability to the situation in the Napo Concession. The unpublished Canadian document is simply not a credible source, and the API document is misrepresented by Texaco.

[244] (O'Reilly et al., 2001)

[245] Woodward-Clyde at 3-15 (May 2000).

[246] Woodward-Clyde at 3-8 (May 2000).

[247] Woodward-Clyde at 3-8 (May 2000).

When the 5,000 ppm TPH closure criterion is compared to standards used in the United States during the same period, it is clear that Texaco standards greatly exceed the norm. In 1990, the majority (68%) of states in the United States used a TPH soil closure standard of 100 ppm or less – 50 times more protective than the Texaco criterion. This group included three of the top five oil-producing states, Alaska, New Mexico, and Texas. And the Texas standard only applied to sites where groundwater was not threatened.

When compared to the TPH standards that were still used in 1994 in a handful of states, the Texaco closure criterion of 5,000 ppm was at least five times higher than the typical U.S. standard and almost 17 times higher than the closure standard in Louisiana, a state known as being friendly to the oil industry. Whenever groundwater was threatened, as can be seen in the Oriente, a lower, more protective standard would be applied. In 1994, two of the top five oil-producing states, Louisiana and New Mexico, had allowable TPH concentrations of 300 and 100 ppm, respectively.

In the United States in 1994, constituent and site-specific standards that considered local exposure pathways were beginning to be used, instead of, or in addition to, the non-specific TPH standard. For example, states began establishing concentration limits for benzene, a known human carcinogen that is found in many types of fuels. Although the measurement of individual chemical contaminants was commonplace in 1994, Texaco chose instead to use TPH for its closure criteria. No toxicity can be assigned to this generic TPH parameter, which is a combination of many individual but unspecified petroleum hydrocarbons. Although Woodward-Clyde (2000) stated that no such constituent-specific standards existed at the time of the remediation, such standards were in routine use in the United States.

The use of both or either TPH closure criterion was not protective of human health and the environment and does not comport with other, more protective international standards that Texaco promised to use. Therefore, Texaco did not comply with its own promise to the Government of Ecuador to perform remediation in the Oriente "in accordance with all existing Ecuadorian laws and regulations and in accordance with international standards of practice for environmental remediation and reclamation of oil fields in tropical areas."[248] Once again, Chevron intentionally used a different standard in Ecuador than it would have employed in the U.S.

[248] Government of Ecuador, Petroecuador, and the Texaco Petroleum Company, 1994.

(c) *A remedial investigation to determine the degree of the damage was not completed before remediation began.*

The first step in a remediation effort must be an investigation of the nature and extent of contamination. An assessment of the type and extent of contamination is essential for selecting appropriate water and soil treatment technologies.[249]

A pre-remediation investigation of petroleum-contaminated sites should be conducted in phases.[250] A Phase I assessment should include at a minimum a visual inspection of the site for evidence of contamination, including stained soil, distressed vegetation, groundwater seeps, odors, drains, and other conditions. If contamination is indicated or confirmed, a Phase II assessment should be initiated, which includes an initial site characterization and a more extensive site assessment.[251] Elements of the initial Phase II site characterization include but are not limited to an evaluation of:

- Contaminant extent
- Mobility of the product constituents
- Likely migration direction and rate
- Depth to the water table
- Groundwater flow directions.

Elements of a more extensive Phase II site assessment include but are not limited to:

- More extensive sampling to determine the full vertical and horizontal extent of contamination
- Collection of lithologic logs
- Groundwater sampling, if necessary
- Calculation of groundwater gradients
- Baseline and off-site sampling and laboratory results.

None of this type of information was collected prior to initiating remediation in the Concession. The remedial "investigation" that was conducted by Woodward-Clyde did not include examining the extent of soil contamination, groundwater contamination under and downgradient of the pits and other sources, contamination of surface water or stream sediment with petroleum hydrocarbons and associated metals and salts, or the effects on terrestrial vegetation, wetlands, aquatic vegetation, aquatic biota, air quality, or human health. Not a single permanent groundwater monitoring well exists in the Concession to this day. In other words, the remediation of the Napo Concession and the associated contract were conducted without knowing the nature and extent of contamination. The lack of a remedial investigation means that Texaco simply could not have selected the appropriate water and soil treatment technologies to be employed in its so-called remediation.

[249] Cole, 1994

[250] Cole, 1994

[251] Cole, 1994

(d) *Texaco unreasonably limited the scope of the "remediation"*

During its years as sole operator of the Napo Concession (1964-1990), Texaco created and used 916 waste pits for the open disposal of crude oil, produced water, drilling muds, and other drilling chemicals.[252] However, Texaco purportedly cleaned up only 16% of the total number of pits and conducted no remediation and generally no testing at remaining pits, as shown in the figure below.

Before the contract was signed, a total of 477 pits were covered/hidden and thereby excluded for consideration. The RAP required that Texaco remediate 37.5% of the sites in the Napo Concession, according to its relative ownership stake at that time. There are a total of 356 well sites in the Concession; 37.5% of the wells would total 133 well sites. The Scope of Work for the remediation (March 1995) required that all pits and spills at 108 well sites be identified, remediated, and closed. An additional 26 abandoned well sites were included, for a total of 131[253] wells sites in the scope of work for pit remediation.[254] A total of 225 pits were identified at the 131 well sites (37.5% of the total number of pits is 344 pits). Of these 225 pits, 76 were designated as no further action (NFA). After some additions, 162 pits and 6 spill areas were ultimately remediated.[255] (*See* Figure 3)

The scope of the cleanup was limited by excluding pits from remedial actions for any of the following reasons:

[252] Cabrera, 2009.

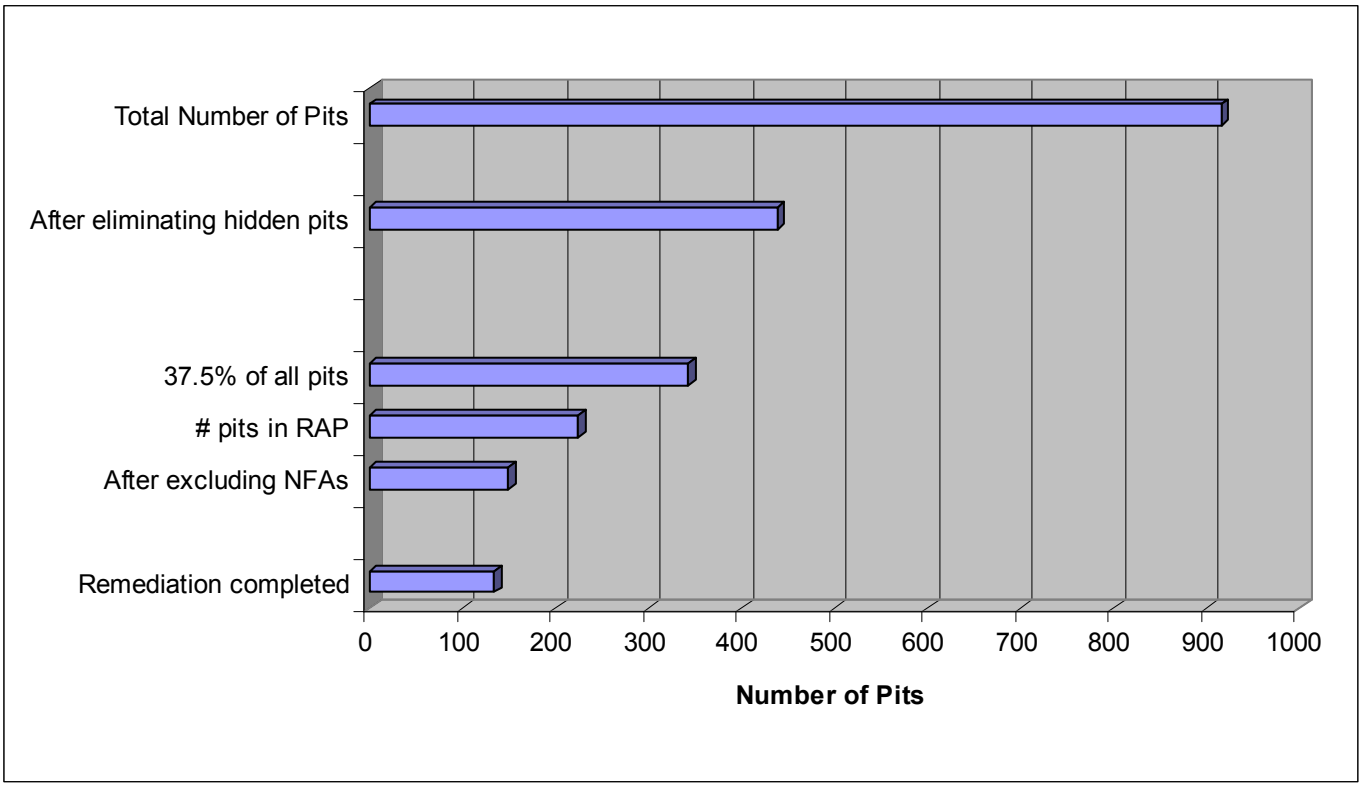
[253] Three well sites were duplicated in the Statement of Work, according to Woodward-Clyde, 2000.

254 Woodward-Clyde at 3-3, Table 3-1 (May 2000).

255 Woodward-Clyde at 3-3, Table 3-1 (May 2000).

- Pit was previously closed, and surface and subsurface soil samples showed no evidence of hydrocarbons
- The waste pit was covered, but not remediated by 1990
- The waste pit was a water pit that was being used by the local community
- Pit was constructed and/or modified by Petroecuador after June 30, 1990
- Soil contamination was below the action level (5,000 ppm TPH)
- The well was finished after June 30, 1990
- The owner would not allow access
- Pit was used as a municipal landfill
- Pit was used to grow crops
- Pit was used as a fish pond by local community
- Pit was naturally revegetated
- Pit was covered or hidden
- Road crosses the platform
- Currently used by Petroecuador
- Requested by Petroecuador for future use.

Figure 3: Purposeful Reduction of Scope of Remediation



3. The Numbers Do Not Lie: The Continued Presence of Toxins at the "Remediated" Sites

Every one of the "remediated" well sites had soil concentrations exceeding 100 ppm TPH, and many of the remediated sites exceeded both the Ecuadorian TPH soil standard (1,000 ppm) and the contract-required TPH action level (5,000 ppm). Samples of the purportedly "cleaned" pits submitted during trial by all parties, including Chevron, showed that total petroleum hydrocarbon (TPH) concentrations still exceeded the Ecuadorian standard of the 1,000 ppm in 83% of the pits that Texaco supposedly remediated. In fact, TPH concentrations were as high as 206,000 ppm in some of these "cleaned" pits. Even independent data collected by third parties confirmed that Texaco's purported remediation of the waste pits was completely ineffective. For instance, samples collected in the late 1990s by the Ecuadorian Ministry of Energy and Mines at sites in the same area as those allegedly "cleaned" by Texaco, registered TPH concentrations in excess of 5,000 ppm. In addition, 73% of the samples from the pits that Chevron declared "clean" that were collected in 2003, as part of an academic research project, exceeded 1,000 ppm and 20% exceeded 5,000 ppm TPH.

Record evidence demonstrates that 45 of the 54 Texaco "remediated" pits – pits which Texaco certified to the Government as "completely remediated" – have illegal levels of TPH. Indeed, as the chart below demonstrates, two of those pits have TPH more than 30 times the legal limit and **all,** but two of those pits have more than **twice** the legal limit of TPH.

#	SITE	CHEVRON'S CLAIM	TPH	NUMBER OF TIMES OVER LEGAL LIMIT
1	Sacha 18	Complete Remediation	35,380	35.3
2	Sacha 65	Complete Remediation	32,444	32.4
3	Shushufindi 27	Complete Remediation	26,413	26.4
4	Atacapi 5	Complete Remediation	21,976	21.9
5	Sacha 21	Complete Remediation	17,000	17.0
6	Shushufindi 21	Complete Remediation	16,033	16.0
7	Shushufindi 27	Complete Remediation	13,587	13.5
8	Shushufindi 45A	Complete Remediation	13,290	13.2
9	Shushufindi 48	Complete Remediation	13,000	13.0

10	Shushufindi 7	Complete Remediation	12,715	12.7
11	Shushufindi 25	Complete Remediation	10,956	10.9
12	Shushufindi 27	Complete Remediation	10,452	10.4
13	Ron 1	Complete Remediation	9,632	9.6
14	Lago Agrio 5	Complete Remediation	8,830	8.8
15	Sacha 94	Complete Remediation	8,700	8.7
16	Aguarico 8	Complete Remediation	8,183	8.1
17	Sacha 57	Complete Remediation	8,100	8.1
18	Sacha 65	Complete Remediation	7,519	7.5
19	Sacha 53	Complete Remediation	7,430	7.4
20	Shushufindi 13	Complete Remediation	7,415	7.4
21	Sacha 51	Complete Remediation	7,200	7.2
22	Shushufindi 45A	Complete Remediation	5,721	5.7
23	Sacha 94	Complete Remediation	5,600	5.6
24	Shushufindi 25	Complete Remediation	5,574	5.5
25	Guanta 4	Complete Remediation	5,510	5.5
26	Shushufindi 7	Complete Remediation	5,334	5.3
27	Shushufindi 48	Complete Remediation	5,000	5.0
28	Shushufindi 18	Complete Remediation	4,881	4.8
29	Lago Agrio 2	Complete Remediation	4,777	4.7
30	Auca 19	Complete Remediation	4,014	4.0
31	Yuca 28	Complete Remediation	3,876	3.8

32	Shushufindi 46	Complete Remediation	3,697	3.6
33	Sacha 56	Complete Remediation	3,600	3.6
34	Sacha 6	Complete Remediation	3,300	3.3
35	Shushufindi 21	Complete Remediation	3,133	3.1
36	Sacha 51	Complete Remediation	3,100	3.1
37	Shushufindi 48	Complete Remediation	3,000	3.0
38	Sacha 10	Complete Remediation	2,802	2.8
39	Shushufindi 48	Complete Remediation	2,700	2.7
40	Sacha 57	Complete Remediation	2,400	2.4
41	Shushufindi 24	Complete Remediation	2,180	2.1
42	Parahuacu 3	Complete Remediation	2,065.12	2.065
43	Shushufindi 24	Complete Remediation	2,000	2.0
44	Shushufindi 8	Complete Remediation	1,600	1.6
45	Lago Agrio 6	Complete Remediation	1,300	1.3

In conclusion, Texaco´s so-called remediation was nothing but a sham – from start to finish.

III. LEGAL ANALYSIS

The basic elements of Chevron's extracontractual liability – a universal concept that is referred to as liability in "tort" in certain other jurisdictions throughout the world – are as follows: (1) the culpable act of the person[256] that inflicted the damage; (2) the causal link between the culpable act and the damage inflicted; and (3) the existence of damage or injury, whether physical or moral.[257] In this Section, we shall focus primarily on the first and second elements of liability – damages will be addressed briefly, but will be substantially fleshed out in *Part Two* of Plaintiffs' Alegato Final.

A. Chevron's Culpable Conduct

Objective liability – applicable to high-risk activities – is applicable to Chevron's conduct underlying this case, obviating the need to find negligent or intentional conduct under the classic, subjective liability analysis. Nonetheless, both of these alternate theories of liability will be discussed in this Section, because even under the subjective liability analysis, Chevron is liable.

1. *Objective Liability*: The "Culpable Conduct" requirement is satisfied by the fact that Chevron's oil extraction operations were an abnormally dangerous and risky activity, without regard to negligence or intent to harm

Pursuant to Article 2229 of the Civil Code (the former Article 2256), persons who engage in especially risky activities have a special obligation to redress damages arising from them, regardless of whether there was any malice or fault involved in the conduct that gave rise to injury.[258] To wit:

---

[256] The axiom that a "person" must pay indemnification for any crimes or quasi-delicts causing damage to another applies with equal force to a *legal entity* such as Chevron: "There is no question that, in the conduct of legal entities through actions carried out by their administrators, the existence of a *quasi-delict* generates civil obligations . . . subject to the conditions of the existence of a culpable damage, the causal relationship between the fault and the damage; and the active subject's legal competence." (Sentence in Third Instance. Judicial Gazette. Year XVI. Series XV. No. 10. Page 3048. Published on November 12, 1990.) In a similar vein, the culpable acts of corporate employees are imputed the corporate entity: "The Civil Code . . . calls unlawful acts not only personal actions or omissions by the responsible party . . . but also damages caused by persons for whom they are responsible, under their care, or dependent on them, … or things which are their property or which they use." (First Civil and Mercantile Chamber of the Supreme Court of Justice, dated October 29, 2002.)

[257] Judgment of the First Civil and Commercial Chamber of the Supreme Court, dated October 29, 2002. Gaceta Judicial. CIII year. Series XVII. No. 10. Page 3011)

[258] Ecuadorian Civil Code, Art. 2229 (former Art. 2256) (Book IV).

> As a general rule, all damages which must be attributed to another person's malice or negligence must be redressed by said person. The following are *especially obligated* to pay said redress:
>
> 1. A person who imprudently provokes explosions or combustion;2. A person who imprudently fires a firearm;
> 3. A person who removes the tiles or plates which cover a ditch or pipe on a street or road, without taking the necessary precautions to keep the people who move thereon during the day or at night from falling;
> 4. A person who, being obligated to build or repair a water supply system or bridge that crosses a road, leaves it in a condition capable of harming the persons who move along it; and
> 5. A person who produces and markets products, objects, or devices which cause accidents due to defect of manufacture or construction shall be accountable for the respective damages.[259]

The sentence of the First Civil and Mercantile Chamber of the Supreme Court of Justice, dated October 29, 2002, defines the nature and scope of risk theory and objective liability in the Ecuadorian legal system, and provides the foundation for the application of this doctrine to Chevron. Specifically, the Supreme Court has held that Article 2229 should be construed as merely an *illustrative* – but by no means exhaustive – list of the types of activities which, given the risk they pose to society, should be given special treatment: "[The activities described in Article 2226 – now 2259] *were dangerous activities at the time when the Code was drafted; hence, the legal doctrine and jurisprudence resolved to broaden said applications to other cases of industries, economic establishments, or activities that pose special dangers in modern times.*"[260]

The public policy justifying the establishment of a different standard to impose liability on persons who engage in abnormally risky activities is simple: those who reap profit from exposing society to risky activities should bear the consequences when those activities result in damage. This objective liability theory – recognized throughout the world and also known as "strict liability" in some jurisdictions – also accounts for the fact that the burden of demonstrating culpability, particularly where damages inflicted by heavy industry are concerned, is "*in most cases nearly impossible or very difficult for the victim*." [261] Thus, the law relieves the plaintiffs of the burden of demonstrating culpability.

---

[259] Ecuadorian Civil Code, Art. 2229 (formerly Article 2256), (Book IV), (emphasis added).

[260] First Civil and Mercantile Chamber of the Supreme Court of Justice, Judicial Reporter, Year CII, Series XVII, No. 10, Pg 3011 (Quito, Oct. 29, 2002). Trial 31-2002, Official Registry, No.43 (March 19, 2003).

[261] Trial 31-2002, Official Registry, No. 43 (March 19, 2003).

It is well-established that oil-extraction operations are considered a high-risk activity and fall within the rubric of objective liability. The Supreme Court has said that "***the production, industry, transportation, and operation of hydrocarbon-based substances are undoubtedly activities of high risk or danger***." [262] Objective extracontractual liability clearly applies to Chevron's conduct that gives rise to this action. In other words, although Chevron clearly engaged in gross misconduct, it is not actually necessary for Plaintiffs to demonstrate that Chevron acted with malice or neglect. The "culpable conduct" element of liability is satisfied solely by the fact that Chevron was engaged in a high-risk activity.

2. *Subjective Liability*: Even if objective Liability were not applicable, Chevron engaged in willfull misconduct, or was at the very least negligent

Notwithstanding the clear applicability of *objective* liability, there is abundant evidence to demonstrate that Chevron's conduct was malicious or grossly negligent, supporting the application of *subjective* liability.

Pursuant to Article 2214 the Civil Code, "a person who has committed a crime or a *quasi-delict* that has inflicted damage on another is obligated to pay indemnification, without prejudice to the penalty imposed on him by the laws for the crime or *quasi-delict*."[263] The Supreme Court has illuminated the distinction between "crime" and "quasi-delict" as contemplated by this Article. To wit:

> According to articles 1480, 2241 and 2256 of the Civil Code , a person who has committed an unlawful act that has inflicted damage on another person or the latter's property incurs a civil liability to pay indemnification to the injured party. The unlawful act may fall under the legal definitions of a crime or a quasi-delict. A crime is an act committed with the intention to do damage, i.e., with fraud or malice, which according to the definition provided in Article 29 of the Civil Code is the positive intention to injure another person or the latter's property. A quasi-delict is an unlawful act committed with culpability, which according to the third part of the same article is an absence of the diligence which men ordinarily apply in their own affairs. The same unlawful act, then, may be a crime or a quasi-delict, and it may be of a criminal or a civil nature. [264]

[262] Trial 31-2002, Official Registry, No.43.

[263] Ecuadorian Civil Code, Art. 2214 (Book IV).

[264] Trial 334-99, Official Registry, No. 257 (Aug. 18, 1999); See also Trial 297-2000, Official Registry, No. 140 (Aug. 14, 2000); Case 53, Trial 135-2002, Official Registry, No.66 (April 22, 2003).

In sum, the difference is one of scienter – a "crime" under the Civil Code is a culpable act committed with the intent to harm (akin to an intentional tort in American jurisprudence), while a "quasi-delict" is a culpable act committed *without* such intent (akin to the concept of negligence in American jurisprudence). More specifically, a "crime" may involve conduct which includes an element of "fraud, malice, and a positive intention to inflict injury on another person or the latter's property," while a *quasi-delict* involves conduct that bears the characteristic(s) of "carelessness, imprudence, negligence, and lack of diligence or care."[265]

There can be no doubt that Chevron's conduct in Ecuador, as fully described herein at Section II, amounts – at a minimum – to "carelessness, imprudence, negligence, and lack of diligence or care." First, Chevron's operations were in violation of myriad Ecuadorian laws – laws designed to prevent the very type of environmental disaster that has occurred here. Second, Chevron's operations in Ecuador were substandard in comparison to their practices in the United States and at the time – Chevron was able to operate in a cleaner, safer manner, and chose not to. Third, Chevron's conduct violated its contracts in Ecuador. With this confluence of facts, there is simply no way for Chevron to argue that it acted in a reasonable and prudent manner. What becomes clear is that Chevron believed it could get away with substantially lowering the bar for safety in Ecuador as opposed to the United States as a means of cutting costs, even if Ecuadorian law prohibited this behavior. After seventeen years of litigation, one thing is certain – Chevron was wrong.

(a) *Chevron Violated Ecuadorian Law*

During the period in which Texaco operated in Ecuador, multiple provisions of Ecuadorian law, both laws and regulations, required Texaco to: (1) adopt the best practices and technology available to it, machinery, and technologies in the conduct of its operations; and concomitantly, (2) avoid contamination of the water and soil, and to take all necessary actions to prevent damage to the rainforest ecosystem. Texaco boldly violated both types of laws and regulations – some of which deal directly with hydrocarbons and some of which are of more general application – all are outlined below. Chevron's violation of multiple laws and regulations is irrefutable proof that it acted with "carelessness, imprudence, negligence, and lack of diligence or care."

Chevron's misconduct, as described in detail at Section II herein, constituted a violation of the following laws in effect at the pertinent time:

The Deposits Act: The Deposits Act[266] was enacted in 1921, long before Texaco's arrival in Ecuador. This law gave concession holders the *"Right of use, for purposes of commercial use, and in the necessary quantity, of waters,... without depriving them of their qualities of potability and purity."* (emphasis added is ours). Texaco dumped millions of gallons of toxic wastes into the rivers, wetlands, and other bodies of

[265] Sentence in Third Instance, Judicial Reporter, Year XVI, Series XV, No.10, Pg. 3048 (Nov. 12, 1990).

[266] Deposits Act of December 17, 1921 (emphasis added).

water in the Amazon basin. As a result, even today, many of the region's water resources do not have the degree of potability and purity required for human consumption or that would be conducive to the survival of the ecosystem.

Article 29 of the Hydrocarbon Law of 1971: Article 29 of the Hydrocarbons Law of 1971[267] provided that "The contractors or partners in hydrocarbon exploration and extraction, in refining, in transportation, in marketing, in petrochemical production, and in related fields are obligated to (. . .) e) Use modern and efficient machinery (. . .) s) Adopt necessary measures to safeguard the flora, fauna, and other natural resources; and t) Avoid contamination of the waters, the atmosphere, and the lands". This law was in force before Texaco produced its first barrel of oil in 1972. Texaco did not use modern or efficient machinery; rather, the technology it used in Ecuador was deficient and of lower quality than the technology it possessed and used in other parts of the world. Neither did the oil company take the necessary actions to safeguard nature and avoid contamination. While it used technology to avoid environmental damage in other parts of the world, in Ecuador, Texaco dug hundreds of pits into which it dumped toxic sludge, dumped millions of gallons of produced water into the rivers, burned tons of production material, of toxic gas, and covered thousands of meters of roadway with oil waste.

Article 31 of the Reformed Hydrocarbons Law of 1982: Article 31 of the Reformed Hydrocarbons Law of 1982[268] provides that contractors are obligated to: "*e) Use modern and efficient machinery (. . .) s) Submit the plans, programs, projects, and financing to ensure that the exploration and extraction activities have no adverse effect on the economic and social organization of the population established in the areas where the aforementioned activities are conducted and on all the natural resources, both renewable and non-renewable, in the locality, to the Ministry of Hydrocarbons for its approval;* [and] *t) Conduct the oil operations in accordance with the Laws and Regulations intended to safeguard the environment and the country's security, and in relation to international practice in regard to the preservation of fish wealth and agriculture and livestock raising activities*". (emphasis added is ours). This provision specifically contemplates the social damage that might ensue from careless oil extraction operations – the very type of social and cultural damage that has afflicted the indigenous peoples of the Amazon basin. Moreover, this provision specifically contemplates that Chevron must adhere to international practice – something that the company certainly did not do in attempting to get away with using antiquated and unsafe practices and technologies in Ecuador.

[267] Hydrocarbon Act, DS 1459, R.O. 322 of October 1, 1971

[268] Reformed Hydrocarbons Act, R.0. 306 of Aug. 13, 1982 (emphasis added).

Maritime Police Code: The Maritime Police Code,[269] published in 1960 and reformed in 1974, contain regulations pertaining to contamination by petroleum products. The Code states, in pertinent part: "Control of contamination produced by hydrocarbons in the territorial waters, (…) as well as in the rivers and navigable waterways, is declared to be a matter of public interest …. Art. 115A; Discharging or dumping of hydrocarbons or their residues, as well as other toxic substances coming from hydrocarbons and harmful to the marine ecology into the waters of (…) the rivers and navigable waterways is prohibited. Art. 115 B; industrial plants, refineries, (…), and similar institutions are likewise prohibited from dumping hydrocarbons or their residues into the sea, coasts, and beach areas, as well as into the rivers and navigable waterways, without first having treated such materials to make them innocuous, to which end adequate special equipment must be maintained at all times (…) Art 115 C; It is mandatory for all vessels or coastal facilities that have provoked contamination due to hydrocarbons to immediately take all measures to cease, attenuate, or minimize said contamination. (…) Art, 115 G; The penalties imposed for infringing this section's provisions or their complementary provisions shall necessarily be accompanied by the penalty of payment of the sums required to clean up the waters and the adjacent coastlines, and in general, to repair the damage caused, without prejudice to the civil or criminal actions which may be appropriate. Art. 115 P; The popular action is likewise authorized to denounce acts which provoke or tend to provoke hydrocarbon contamination. Art. 115 W". (emphasis added is ours). The rivers of the area polluted by Texaco, as well as their hydrographic systems, are protected by this law.[270]

Needless to say, Chevron's discharge of produced water directly into the waterways and riverbeds of the Ecuadorian Amazon, among other practices that led to the contamination of the waters in this region, constituted a blatant violation of this provision – a law that specifically contemplates a popular action to redress the harms caused by pollution of the waterways.

In addition to the foregoing laws, Texaco's conduct in Ecuador also ran afoul of the following hydrocarbon regulations applicable at the time of the company's operations, which are excerpted in pertinent part:

The Hydrocarbon Exploration and Extraction Regulations of 1974: Articles 41 and 42 of these regulations[271] provided in that "*the operator must take all measures and precautions which may be appropriate in conducting its activities to avoid damage or danger to persons, property, natural resources, and sites of archaeological, religious, or tourist interest (art.41). When the salt water, drilling muds, test oil, or other substances might cause damage to the flora or fauna, the Operator must propose the appropriate form of disposing thereof in such a way as to avoid said damage to the ministry*." (emphasis added is ours).

[269] Maritime Police Code. R.O. 643, reformed of September 20, 1974.

[270] Harbormaster's Office at Nuevo Rocafuerte, R.O. 457 of June 19, 1970; Harbormaster's Office at Francisco de Orellana. R.O. 710 of Dec. 27, 1974.

[271] Hydrocarbon Exploration and Extraction Regulations, DS1185 R.O. 530 of April 9, 1974.

The Regulations for application of Law 101 of 1983: Article 22.1of these regulations[272] provided that *"[t]he contractor shall be responsible for the performance of the technical, economic, and administrative operations, as well as for compliance with all the obligations arising from the contract and the Law."* According to Article 33, *"[t]he contractor shall adopt the necessary measures to safeguard the flora, fauna, and other natural resources, while simultaneously avoiding contamination of the air, water, and soil, in conformity with the respective provisions of law and international agreements."* (emphasis added is ours).

The Hydrocarbon Operations Regulations of 1987: The Hydrocarbon Operations Regulations[273] required that "[t]*he operating company, as well as the subcontractors engaged in hydrocarbon activities, in accordance with the laws and regulations intended to safeguard the environment and according to the international practices on the preservation of fish wealth and the agricultural and livestock raising industries, must avoid any kind of environmental contamination arising from their operations which might cause harm to human life and health, flora, and fauna*."

The Provisions for the Prevention, Control, and Rehabilitation of the Environment in Explorational and Operational Hydrocarbon activities in National Parks or equivalent of 1988: These provisions[274] provided that "[t]*he operating companies are responsible for ensuring compliance with all the provisions of law adopted to safeguard the environment (Art. 4); Upon the conclusion of drilling, the fluids left in the pits for evacuation or compacted plugging shall be eliminated, and following their treatment to neutralize their toxic or polluting action (Art. 16); In the event of abandonment, it is necessary to: c) neutralize the action of polluting substances* (Art. 22)."

In addition to the specific laws and regulations germane to hydrocarbons and oil extraction, Chevron's conduct was in violation of a number of other laws and regulations that imposed absolute obligations on Chevron to avoid environmental contamination. The legal framework applicable at the time of Texaco's operations is one of zero tolerance for pollution –indeed, these laws require the violator to return the affected area to its original state:

The Environmental Contamination Prevention and Control Law of 1976: The Environmental Contamination Prevention and Control Law of 1976[275] stated that *"[i]t is prohibited to discharge residual waters containing pollutants which are harmful to human health or to fauna, flora, and property, without subjection to the appropriate technical standards and regulations, into the sewer networks or into the streams, ditches, rivers, natural or artificial lakes (Art. 16); It is prohibited to discharge any kind of*

[272] Regulations for Application of Law 101. DE 1770. R.O. 509 of June 8, 1983.

[273] Hydrocarbon Operations Regulations. AM1311, R.O. 681 of May 8, 1987.

[274] Hydrocarbon Exploration Prevention, Control, and Rehabilitation Provisions. AM 1743, R.O. 4 of August 16, 1998.

[275] Environmental Contamination Prevention and Control Act. DS #374. R.O. #97 of 5/31/1976.

pollutant which could alter the quality of the soil and adversely affect human health, flora, fauna, natural resources, and other goods without subjection to the appropriate technical standards and regulations (Art. 20)."

The Health Code of 1971: Article 17 of the Health Code[276] stated that *"[n]o one may discharge harmful or undesirable substances, either directly or indirectly, in such as way that they might pollute or adversely affect the water's health quality and totally or partially obstruct supply routes."*

The Waters Law of 1972: The Waters Law[277] provided that *"[a]ll waters are declared to be national goods for public use (Art. 3); All contamination of waters which might adversely affect human health or the development of flora or fauna is prohibited (Art. 22); Any person who infringes this Act's provisions shall be penalized with a fine not exceeding 100% of the profit obtained through this unlawful action, or 100% of the damage inflicted by it (Art. 77); The violator must remove the work and return things to their previous condition (Art. 78)."*

The Regulation of the Waters Law of 1976: The Regulation of the Waters Law[278] provided that *"[a]ll waters, flowing or not, which reflect a deterioration of their physical, chemical, or biological characteristics due to the influence of any element ... resulting in a total or partial limitation of their availability for domestic, industrial, agricultural, fishing, recreational, and other use are deemed 'Polluted Water' (Art. 89); Any change produced by the influence of pollutants or any other action capable of causing or increasing the degree of deterioration of the water or modifying its physical, chemical, or biological qualities, and in addition, due to the damage caused in the short or long term to the uses mentioned in the preceding article, is deemed a 'harmful change' (Art. 90)."*

(b) *Texaco's practices in Ecuador were grossly substandard relative to the prevailing industry custom and existing knowledge regarding the harmful effects of improper petroleum waste management practices*

(i) Texaco's discharge of produced water directly into surface water

While no one is naïve enough to mistake an oil company for a public interest group, society nonetheless demands a certain level of human decency and respect for the environment in the pursuit of profit. It appears that Texaco played by those rules in the United States – but sadly, the same cannot be said of its conduct in Ecuador. The stark contrast between Texaco's practices in Ecuador and the prevailing industry standard as well as its practices in the United States lead inexorably to the following conclusion:

[276] Health Code. DS #188. R.O. #158 of February 8, 1971.

[277] Waters Act. R.O. #369 of March 30, 1972.

[278] Regulations of the Waters Act. DS #40. R.O. #233 of January 26, 1973.

Texaco had no regard for Ecuador, its laws, and most importantly, its people. Texaco's failure to use in Ecuador the cleaner safer practices that it could and did use in the U.S. is irrefutable proof that its conduct was – at minimum – grossly negligent.

Since 1942, oil producers and oil industry regulators have known that produced water is harmful to the environment and human health.[279] According to several scientific and U.S. government studies, produced water contains multiple toxic and carcinogenic hydrocarbons, including benzene, toluene, and polynucleic aromatic hydrocarbons.[280] Since 1942, the standard practice in the United States has been the re-injection of the water deep underground.[281] Re-injection technology involves re-inserting the produced water into a saline aquifer deep underground, using a non-producing well or a well specifically drilled to re-inject the produced water deep enough so that it cannot pollute a water source.[282] Indeed, as early as 1942, *25 years before Texaco began its operations in Ecuador*, the State of Louisiana adopted Order 29-A, which regulated, among other things, produced water deposits, storage of drilling fluids, prevention of contamination, and the procedure for abandoning wells.[283] Section XV of Louisiana Order 29-A clearly states that "no type of salty produced water is permitted to run through natural drainage channels."[284] The Texas Oil & Gas Rules also has made illegal the dumping of oil and mineralized water in any drainage channel that leads to fresh water.[285] Texas Rule 9 clearly stated that re-injection is the preferred method for handling produced water. Moreover, even the American Petroleum Institute, which is supported by the *oil industry*, had recommended the re-injection of produced water as early as the 1960s, before Texaco drilled its first well in Ecuador.[286]

It is a fact that Texaco used re-injection in the State of Louisiana since the 1930s.[287] Moreover, Texaco's oil field discharge permits pertaining to its operation in the State of California in the 1960s specified that, in places where fresh water aquifers or surface water could be impacted, produced water could be dumped *only* when the water's salinity does not exceed 1000 ppm total dissolved solids ("TDS"), the chlorine levels do

[279] Cuerpo 943, Foja 10330: Powers (April 2006).

[280] Cuerpo 943, foja 103.329

[281] Cuerpo 943, Foja 10330: Powers (April 2006).

[282] Main 952 104346 Foja: Louisiana Department of Conservation (Minerals Division), Order on Drilling for Oil and Gas Production in Louisiana, Order Number 29-A (May 20, 1942).

[283] Cuerpo 943, Foja 104,346: Louisiana, Order number 29-A (May 1942).

[284] Cuerpo 943, Foja 104369-10: Texas Railroad Commission, *Book of State Regulations on Oil and Gas in Texas*, since July 1, 1964, corrected on July 1, 1967.

[285] Cuerpo 943, Foja 104369: Texas Railroad Commission (1967).

[286] Cuerpo 1489, Foja 159808-158811: "Spanish translation of the book *Premier Oil and Gas Production*, API (1962). The English original is in the body 1308 of file.

[287] Cuerpo 1489, Foja 158756-158834, Spanish translation of the book: *Premier Oil and Gas Production*. The English original is in the body 1308 of file ..

not exceed 175 or 200 ppm, and the boron concentrations do not exceed 1 to 2 ppm[288] As described at Section II.1, *supra*, Texaco officials were espousing the need for safe management and disposal of production in industry practice guides in the early 1960s, and indeed, Texaco held patents on re-injection technology. Notwithstanding the foregoing, Texaco dumped at least 16 billion gallons of toxic produced water directly into surface water sources and onto the surface of the land in Ecuador.[289]

Chevron has attempted to justify its malfeasance by citing a "statistic" that the average annual volume of produced water dumped by Texaco in Ecuador was equivalent to only 1.7% of the total volume of water dumped on land in the United States in 1985.[290] But this number, even if accurate, is deceptive and devoid of meaning without context. According to a comprehensive study conducted by the U.S. Congress Office of Technological Evaluation in 1985, 91% of all the produced water in the United States was discharged by re-injection and only 6% was dumped into rivers and streams.[291] In contrast, during its operations from 1964 to 1992, Texaco dumped 100% of its produced water, without treatment, directly into the rivers and streams of Ecuador's Amazonian forest. If Texaco had given the same courtesy to the citizens of Ecuador that it afforded the United States, and had only dumped 6% rather than 100% of its produced water, the environmental catastrophe in Ecuador might be somewhat more manageable than it is.

(ii) Texaco's use of unlined pits for long-term waste storage

The oil industry has known since the early 1930s that unlined pits leaked and were a major source of pollution in the oil industry.[292] Indeed, even before Texaco came to Ecuador; (1) the use of pits was mostly limited to temporary emergency storage, (2) pits needed to be designed to prevent leaks and spills, and (3) oil was not to be left in pits.[293] In 1974, the American Petroleum Institute recommended that, whenever possible, tanks should be used instead of pits, and if the latter must be used, they should be designed in such a way as to prevent contamination of the streams and ground water, should not be covered with oil, and should be closed when the well is complete, which includes the removal and elimination of liquid materials and remediation of the surface area.[294] In addition, the use of open pits like those used by Texaco has been illegal in

---

[288] Ibid.

[289] Cuerpo 943, Foja 10330: Powers (April 2006).

[290] Beltman, 6.

[291] "*Managing Industrial Solid Wastes from Manufacturing, Mining, Oil, and Gas Production and Utility Coal Combustion: Background Paper,"* OTA-BP-O-82. U.S. Government Printing Office, Washington, DC., US Congress Office of Technology Assessment (1992).

[292] "*Disposal of Production Wastes,"* Presented at Panhandler Chapter Meeting of Division of Production by V.L Martin, chairperson of API Committee on Disposal of Production Wastes (April 12, 1932).

[293] Cuerpo 1489, Foja 158770: "*Premier of Oil and Gas Production*," API (1962); "Recommended Onshore Production Operating Practices for Protection of the Enviroment" API (1974).

[294] Ibid; AP,(1974).

Louisiana since 1942 and in Texas since 1939.[295] By 1969, the State of Texas had *completely* prohibited the use of earthen pits to store oil, byproducts, and wastes, and by 1970, most U.S. States required that pits be lined and permitted[296] Indeed, as described above at Section II, Texaco officials had, in the early 1960s, contributed to an industry text which cautioned against the use of pits.[297]

Nonetheless, Texaco built and abandoned upwards of 900 open, unlined, earthen pits full of toxic mud in the Oriente – pits which contained hazardous chemicals such as chromium VI, barium, and lead, among others.[298] These pits have been leaking carcinogenic toxins into the ground water, the soil, and the streams used by the population for drinking water for decades.[299] Unless justice is served in this case, these toxins will continue to affect the Amazon communicates for decades more.[300]

[295] For example, Sections VIII(E) and VIII(C.2) of Louisiana Order 29-B effectively prohibit the use of unlined pits, such as the ones Texaco used in Ecuador, which can easily pollute surface and ground water through spills and leaks. The Texas standards, stipulated by Texas Order No. 20-804, clearly and specifically prohibit the use of open pits to store oil, oil byproducts, and their wastes; it was promulgated 25 years before Texaco used the same prohibited practices in Ecuador. Texas Railroad Commission, Prohibition of Storage in Open Pits. State of Texas Order No. 20-804, July 31, 1939.

[296] "*Ground Water Pollution in the South Central States*," U.S. EPA (June 1973).

[297] Cuerpo 1489, Foja : "*Premier of Oil and Gas Production*," API (1962).

[298] View inventory of pits foja 139357

[299] Cuerpo 98, Foja 10784- Cuerpo 99, Foja: 11011: HBT AGRA Report (1993).

[300] Chevron has several incorrect or misleading claims about the use of pits in U.S. oilfields in a dishonest attempt to make their waste handling and disposal practices in Ecuador seem typical and acceptable. For instance, Chevron has argued that a 1983 report to the Governor of Texas and state legislature states that 4,276 permits for unlined pits were active as of August 31, 1982. [CITE] But the report clearly describes these as produced water pits that were "generally used in connection with disposal well operations." Furthermore, significant environmental protections are implemented in Texas to limit any damage caused by the use of unlined pits. [CITE] Oil operators were only issued permits to utilize unlined pits by the RRC "only for emergency purposes during disposal operations." [CITE] There is simply no comparison between these pits and the ones used by Chevron in Ecuador. Chevron's assertion that unlined pits were used in the U.S. does not remotely address the issue – the real issue is the manner in which Chevron's pits in Ecuador were used.

(iii) Texaco concealed and destroyed evidence of the many spills caused by its grossly negligent waste management standards

As noted above at Section II(A)(2), in the mid-1970s, Texaco adopted a policy of destroying its records of oil spills.[301] Under these circumstances, this Court should adopt an adverse inference against Chevron that the documented spills are only the tip of the iceberg – Chevron should not be permitted to benefit from its bad faith destruction of the evidence of its malfeasance. This is particularly true where, as discussed below at Section II(A)(2)(c), Texaco's spills were part and parcel to the company's blatant dereliction of its contractual obligations. Thus, at the time the company began destroying evidence, litigation was reasonably foreseeable to it.

During the time that Texaco operated in Ecuador, standard practice was to prevent spills through good planning, appropriate design of pits and equipment and proper maintenance of that equipment. Proper spill response plans should be in place and operators should know how to quickly control, contain and clean up any accidental spills, and restore the area to its previous condition. In 1974, the API recommended the development of training programs on discharge prevention and contingency/shut-down plans to minimize the potential for oil discharges or incidents causing pollution or other environmental damage.[302] Earlier, in 1972, the API also indicated that groundwater inspection, using monitoring wells, would be required if groundwater seems likely to have been affected by spills.[303]

Notwithstanding the fact that Texaco's criminal policy of concealment and destruction renders impossible a precise assessment of the damage done by spills (*see* Section III(C), *infra*), the existing evidence clearly shows that Texaco did not prevent, control, or properly remediate spills. Texaco failed to plan for handling spills, used substandard practices in the design and maintenance of its equipment that led to many unnecessary spills, and did not quickly clean up the spills that it caused. (*See* Section II(A), *supra*). Chevron could never have gotten away with this careless disregard in the United States – and it never would have tried.

---

[301] Cuerpo 1307, Foja 140585: Letter from R.C. Shields (President) to M.E. Crawford (Manager) (July 17, 1972).

[302] API (1974).

[303] "The Migration of Petroleum Products in Soil and Ground Water: Principles and Countermeasures," API (1972).

(iv) Texaco's use of horizontal flares

Texaco conducted major oil production operations in the State of California at the time when the company began operations in Ecuador. Undoubtedly, Texaco knew that, as of at least 1973, the accepted practice for oilfield flares in California was to use "smokeless flares."[304] Even earlier than that, as of 1962, the API's conception of a typical and appropriate operation included a pipeline to transfer gas for use or sale, rather than its release into the environment.[305] Industry guidelines clearly indicated that venting of gas should be avoided and that gas should be burned off or "flared."[306] Nevertheless, in Ecuador, Texaco constructed horizontal flares that directed the burning gases directly onto the surface of the waste pits to remove the floating oil layer by direct combustion. This practice resulted in the continuous generation of clouds of thick, toxic smoke into the jungle environment.[307]

(c) *Texaco's practices ran afoul of its contractual obligations*

In addition to the prevailing laws and industry practices, reference to Texaco's contractual obligations also demonstrates that its conduct was – at minimum – grossly negligent.

The concession contract signed by the Ecuadorian government, Gulf, and Texaco in 1973[308] contained clauses which obligated the contracting parties to use the best available practices in their operations and to take all possible precautions to avoid environmental damage. Clause 40 of the concession contract provides that *"[t]he contractors shall employ modern and efficient machinery, as well as apply the most appropriate technology and methods ...";* and Clause 46.1 provides that *"[t]he contractors shall adopt convenient methods to safeguard the flora, fauna, and other natural resources, as well as avoiding contamination of the waters, the atmosphere, and the land."* The contract also obligated Texaco to respect and comply with the existing legislation in the country.[309] "The contracting parties are subject to the laws, judges and

[304] John A. Danielson, ed., Air Pollution Control District County of Los Angeles, *Air Pollution Engineering Manual* (2d ed.), May 1973, at 582 (Table 153). Chevron's practice was indeed substandard compared to industry practices in the United States by the 1950s and 1960s, which included measures to prevent air quality nuisances caused by visual impact, smell, or health impact. *See* California Health & Safety Code, § 41700 Prohibited Discharges (2006); originally promulgated as §24243 (1947); §24360 (1955); §39430 (1967); §39077 (1970). ("[N]o person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, *nuisance*, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property") (emphasis added).

[305] See, Cuerpo 1489, Foja 158756-158834; "*Premier of Oil and Gas Production*," API (1962).

[306] API (1974).

[307] Cuerpo 97, Opposite side of Foja 10675, 1st Para.: Fugro McClelland (1992).

[308] Cuerpo 32, Foja 3193-3194: The Ministry of Natural and Energy Resources contract for hydrocarbon exploration and extraction with Texaco Petroleum Company and Ecuadorian Gulf Oil Company. R.O. #370 of August 16, 1973 (emphasis added).

[309] Cuerpo 32, Foja 3195: Contract, R.O. 3379 (August 16, 1973).

tribunals of Ecuador, after receiving verbal summary, and they expressly renounce all claims through diplomatic channels."[310]

As described herein, none of Texaco's means and methods could be considered "modern" or "appropriate" in *any* context – let alone in a fragile ecosystem such as the Amazon rainforest. Quite the opposite – Texaco's practices and technology were old-fashioned and in direct contravention of the industry's awareness of the hazards associated with oil extraction.

* * *

In conclusion, Texaco's plethora of violations of Ecuadorian law, the company's intentional abandonment of industry norms, and failure to use procedures and technology that Texaco itself acknowledged were necessary to preserve the environment, and the company's violations of its clear obligations under the Concession contract paint a picture not only of ordinary negligence or even recklessness (which alone would render Chevron liable), but indeed, of a grave fault – the equivalent of fraud. Texaco's conduct bears the marks of "fraud, malice, and a positive intention to inflict injury" that amount to a civil crime. This catastrophe was no accident caused by ignorance and lack of due care – this was a premeditated, systematic, and willful infliction of injury on the environment and human health over the course of decades. Texaco came to Ecuador with the intent to violate the law. For this, Chevron must be judged harshly.

B. Causation

The basic notion of causation is simple – a plaintiff bears the burden of demonstrating that that the conduct of the defendant who has committed a civil crime or *quasi-delict* was a cause of the damages in question. Moreover, in this case, where, pursuant to Article 2236 of the Civil Code, contingent or future damages threaten an undetermined number of people, causation is defined as the predictable risk that an unlawful act will have harmful consequences.[311] Thus, in this action, the element of causation consists of the nexus connecting the culpable conduct of Chevron to both the existing and reasonably expected future damage resulting from that conduct.

[310] Cuerpo 32, Foja 3195: Contract, R.O. 3379 (August 16, 1973).

[311] *See* Ecuadorian Civil Code Art. 2236 (Book IV). ("[T]he popular action is granted in all cases of contingent damages which threaten an undetermined number of people due to the imprudence or negligence of an individual.")

In light of the evidence presented in this trial and summarized above, there can be no doubt that Texaco's conduct caused damage – damage that will undoubtedly continue to unfold over time, perhaps centuries – in the Concession area. Indeed, in a letter to the editor of *Vistazo* magazine published in March of 2007, Rodrigo Perez Pallares, one of Chevron's lawyers, admitted that "15,834 billion gallons of produced water were spilled in Ecuador during the operations of the Texaco Consortium between 1972 and 1990.."[312] Faced with indisputable evidence of misconduct and resultant contamination not only from the Plaintiffs and myriad third parties, but also from the Plaintiff's own environmental auditors, the reports of its own judicial inspection experts, and indeed, *admissions from its own lawyers*, Chevron is reduced to simply pointing the finger at Petroecuador. Ostensibly, Chevron asserts that, because Petroecuador may be responsible for a portion of the contamination in the Concession area, Plaintiffs cannot meet their burden on the issue of causation. Chevron's argument is frivolous – it fails as a matter of law and as a matter of fact.

1. Under the framework of joint and several liability, Chevron cannot use Petroecuador as a scapegoat

For good reason, the law does not allow a defendant to evade liability merely by raising the specter of doubt as to which of multiple pollutants actually caused a specific damage. Such a result would be patently unjust. Rather, under Ecuadorian law, as is the case in other jurisdictions throughout the world, the concept of "joint and several liability" prevents Chevron from escaping liability by muddying the causation picture. Pursuant to Article 2217, "[i]f an intentional or negligent act has been committed by two or more individuals, each one of them will be joint and severally responsible for all resulting injury of the crime or offence. . . ."[313] As such, Petroecuador cannot, as a matter of law, serve as Chevron's convenient scapegoat in this litigation. Rather, Chevron's remedy – if the company can prove that Petroecuador is responsible for a portion of damages – is to seek indemnification from Petroecuador for a portion of any judgment entered against it in this case. The public policy underlying this rule is obvious: to the extent that there is uncertainty as to the allocation of damages between two or more culpable parties, it is not the innocent party who should suffer. Simply said, there is damage that must be redressed now and should have been redressed long ago – let the two culpable parties fight it out between themselves another day.

[312] Cuerpo, 1307, Foja 140601: Letter from Rodrigo Pérez Pallares (Representative of Texpet) to the Director of Vistaso Magazine (March 16, 2007).

[313] Ecuadorian Civil Code Art. 2217 (Book IV); *see also* Ecuadorian Civil Code Art. 1530 (Book IV) ("The creditor may apply to all debtors jointly and severally, or agai(nst any of them at will, which cannot then oppose the benefit of division.")

While joint and several liability is the norm in *any* case where damage may have been caused by multiple parties, the justification for the doctrine's application in *this* case is particularly strong. It is no secret that Chevron's legal strategy has been to delay the resolution of this case by any and all means possible – whether legal, ethical, or not. Prior to being re-filed in this Court in 2003, this case was initially filed in the United States in 1993 – not long after Petroecuador took over operation from Chevron. At that time, when Plaintiffs made their claims, Chevron would have had no basis to argue that Petroecuador could somehow be responsible for a portion of the damage. Chevron delayed this case because it believed (albeit erroneously) that, with each passing year, it could more persuasively blame Petroecuador. Simply put, it would be a gross injustice if Chevron were permitted to benefit from its delay tactic.

Even if Chevron's attempt to muddy the element of causation were not fatally flawed as a matter of *law*, the *facts* simply do not support Chevron's desperate attempt to hoist all of its liability onto Petroecuador. Each of the following facts demonstrates that Chevron cannot escape liability by pointing the finger at Petroecuador: (1) sites operated by Texaco and shut down before Petroecuador became operator are generally just as contaminated as sites operated by Texaco and subsequently operated by Petroecuador; (2) the vast majority of contamination at well sites occurs during drilling and development (not once production starts), and this lawsuit incorporates *only* well sites and stations built by Texaco; (3) even if Petroecuador added some degree of contamination to any site, it was done using Texaco's faulty infrastructure designed to release toxins into the environment – Chevron's subsequent abandonment of its facilities does not absolve it of liability; (4) Petroecuador's operations are, in virtually every respect, a vast improvement over Texaco's operations.

2. Sites Operated By Texaco and shut down before Petroecuador became an Operator are generally just as contaminated as sites operated by Texaco and subsequently operated by Petroecuador

Out of the approximately 356 total pits operated by Texaco, 82 were pits at sites operated *exclusively* by Texaco – Petroecuador never took over as operator. [314]

[314] Station Aguarico Expert Report by Fernando Morales, party nominated expert by Texaco; Lago Agrio Central Station Report by Fernando Morales, party nominated expert by Texaco; Lago Agrio Norte Station Report by Fernando Morales, party nominated expert by Texaco; Sacha Central Station Report by John Connor, party nominated expert by Texaco; Sacha Norte 1 Station Report by Bjorn Bjorkman, party nominated expert by Texaco; Sacha Norte 2 Station Report by Bjorn Bjorkman party nominated expert by Texaco; Sacha Sur Station Report by Bjorn Bjorkman, party nominated expert by Texaco; Shushufindi Norte Station Report by John Connor party nominated expert by Texaco; Shushufindi Sur Station Report by John Connor party nominated expert by Texaco; Shushufindi Suroeste Station Report by Ernesto Baca party nominated expert by Texaco; Well Auca 1 Report by Salcedo party nominated expert by Texaco; Well Lago Agrio 6 Report by Gino Bianchi party nominated expert by Texaco; Well Lago Agrio 11A Report by Ernesto Baca party nominated expert by Texaco; Well

According to Chevron experts, only four of the pits operated exclusively by Texaco had TPH values below 1,000 mg/kg. The samples taken at the remaining pits – that is, most of the pits operated exclusively by Texaco – revealed TPH values between 1,300 mg/kg and 900,000 mg/kg.[315] Indeed, at five of these pits,[316] TPH values exceeding 1,000 mg/kg were identified not by Plaintiffs or by Court experts, but by *Chevron's very own technical experts*.

Moreover, the data culled from the judicial site inspections is not the only indicator that contamination is attributable to Texaco, and that Petroecuador's impact on the numbers is negligible, at best. In 1999, Pablo Yepez, an ethno-botanical biologist, and Manuel Pallares, a biologist specializing in geographical information science, carried out a study entitled "Texaco's Legacy: Wells and Stations." During their study, Yepez and Pallares visited sites affected by Texaco and conducted a visual inspection as well as a 1.5 m hand drill to verify the presence of residual contamination.[317] Almost all sites exclusively operated by Texaco were associated with the presence of crude oil or contamination.[318]

As discussed above in Section II(B), the audits performed by Texaco in the early 1990s also confirm that Texaco is responsible for the damage that persists today. Of course, Chevron would argue that these conclusions of the auditors preceded Texaco's remediation – but as fully set forth in Section II(C) above, the remediation was a farce.

3. Most contamination arises from drilling and development – Not Production – and only wells opened by Texaco are at issue in this case

At the oil well sites drilled and operated by Texaco, most if not all of the contamination at the well sites was caused during the well drilling and development activities conducted by Texaco, not during subsequent production (whether the production was under Texaco or Petroecuador). During well drilling and development, Texaco dumped large amounts of waste, including oil and production water that came out of the well before the well was put into full production, drilling muds, and other drilling fluids, at and near the well sites. In contrast, once a well was in production, all of the oil, gas, and produced water mixture that came up out of the ground in the wells were sent directly to the central processing stations.[319] Therefore, once Texaco had the wells in production, the well sites operated essentially as closed systems that limited any

---

[315] Engineer Richard Cabrera's expert report, Appendix H, page 139346.

[316] Namely: Pit 1 at Lago Agrio 6, Pit 1 at Sacha 57, Pit 1 at Sacha 94, Pit 2 at Sacha 57, Pit 2 at Sacha 94.

[317] Cuerpo 3, Foja 270: "Texaco's Legacy: Wells and Stations," by Pablo Yepez and Manuel Pallares (Jan. 2000).

[318] Cuerpo 3 – Cuerpo 22: Yepez and Pallares (Jan. 2000).

[319] Cuerpo 98, Opposite Foja 10817: HBT AGRA (1993). Cuerpo 97, Foja 10684, Fugro-McClelland (1992).

additional contamination at the wells (although contamination at the stations continued). Additional contamination could occur as a result of spills or well maintenance or re-development, but the amount of any further contamination that would occur at well sites once they were in production would typically be much less than the contamination initially caused by Texaco's shoddy handling and disposal of the large amount of waste generated during well drilling and development. Since only wells sites that were drilled, developed, and commissioned by Texaco are the subject of this lawsuit, it is therefore Texaco that is primarily responsible for the contamination at the well sites.

As discussed above in Section II(A)(1)(e), and as established by Official Letter OTE – 387/75 from August 13, 1975, the "drilling mud" used by Texaco during the opening of its oil wells included the use of barium, potassium dichromate, chromium and potassium sulphate, chromium lignosulfonate and chromium alums.[320] Hexavalent chromium – Chromium VI – is particularly carcinogenic.[321] A judicial inspection revealed numerous and significant kinds of contamination of many sites with drilling mud chemicals – chemicals that could *only* have been put there by Texaco, because Petroecuador did not open the sites. The following tables list the sites in which chemicals associated exclusively with the drilling process – and thus exclusively with Texaco – were found during the judicial site inspections, on a chemical-by-chemical basis.

[320] Cuerpo 1257, Foja 135543: Letter from C.H. Wheeler (District Manager) to M.A. Martinez, (August 13, 1975), (supporting Documents for Texaco's use of chrome in drilling mud.),

[321] http://www.atsdr.cdc.gov/tfacts7.pdf

BARIUM

WELL / STATION		Information Source
Aguarico	2	Court
Aguarico	10	Court
Aguarico		Plaintiff / Texaco
Auca	1	Texaco
Auca	4	Court
Auca	5	Court
Auca	17	Court
Auca	19	Corte
Cononaco	6	Texaco
Culebra	Culebra	Court
Lago Agrio	11 A	Plaintiff
Lago Agrio	1	Court
Lago Agrio	15	Plaintiff
Lago Agrio	16	Court
Lago Agrio	Central	Plaintiff / Texaco
Sacha	6	Texaco
Sacha	13	Plaintiff / Texaco
Sacha	14	Plaintiff / Texaco
Sacha	18	Plaintiff / Texaco
Sacha	21	Texaco
Sacha	51	Plaintiff
Sacha	53	Texaco
Sacha	57	Texaco
Sacha	65	Plaintiff
Sacha	85	Plaintiff / Texaco
Sacha	90	Court

WELL / STATION		Information Source
Sacha	94	Plaintiff / Texaco
Sacha	Central	Plaintiff / Texaco
Sacha	North 1	Texaco
Sacha	North 2	Plaintiff / Texaco
Sacha	South	Plaintiff / Texaco
Shushufindi	4	Plaintiff / Texaco
Shushufindi	7	Plaintiff / Texaco
Shushufindi	8	Plaintiff / Texaco
Shushufindi	13	Plaintiffs
Shushufindi	21	Plaintiff / Texaco
Shushufindi	24	Plaintiff / Texaco
Shushufindi	25	Plaintiff / Texaco
Shushufindi	27	Plaintiff / Texaco
Shushufindi	38	Plaintiff
Shushufindi	48	Plaintiff / Texaco
Shushufindi	61	Court
Shushufindi	67	Plaintiff / Texaco
Shushufindi	45 A	Plaintiff / Texaco
Shushufindi	Central	Plaintiff / Texaco
Shushufindi	North	Texaco
Shushufindi	South	Plaintiff / Texaco
Shushufindi	Southeast	Plaintiff / Texaco
Yuca	2 B	Texaco
Yuca	Central	Court
Yuca	3	Court
Yulebra	Yulebra	Court

CHROMIUM

WELL / STATION		Information Source
Aguarico	5	Court
Aguarico	8	Court
Aguarico	9	Court
Aguarico	10	Court
Aguarico	Aguarico	Texaco
Atacapi	1	Court
Atacapi	5	Court
Auca	4	Court
Auca	5	Court
Auca	7	Court
Auca	15	Court
Auca	17	Court
Auca	19	Court
Auca	Central	Court
Auca	South	Court
Auca Sur	1	Court
Cononaco	6	Texaco
Culebra	Culebra	Court
Guanta	4	Court
Guanta	7	Texaco
Guanta	8	Court
Guanta	Central	Court
Lago Agrio	1	Court
Lago Agrio	2	Texaco
Lago Agrio	15	Texaco
Lago Agrio	Central	Texaco
Ron	1	Court

WELL / STATION		Information Source
Sacha	18	Court
Sacha	29	Court
Sacha	51	Plaintiff
Sacha	56	Court
Sacha	65	Plaintiff
Sacha	90	Court
Sacha	94	Texaco / Plaintiff
Sacha	Central	Texaco
Sacha	North	Texaco / Plaintiff
Sacha	South	Texaco
Shushufindi	4	Texaco
Shushufindi	7	Texaco
Shushufindi	8	Texaco / Plaintiff
Shushufindi	13	Texaco
Shushufindi	18	Texaco
Shushufindi	21	Texaco
Shushufindi	24	Texaco
Shushufindi	25	Texaco / Plaintiff
Shushufindi	27	Texaco
Shushufindi	38	Texaco
Shushufindi	46	Court
Shushufindi	48	Texaco / Plaintiff
Shushufindi	50	Court
Shushufindi	55	Court
Shushufindi	56	Court
Shushufindi	61	Court
Shushufindi	67	Texaco / Plaintiff

Rumiyacu	1	Court
Sacha	10	Plaintiff
Sacha	13	Plaintiff
Sacha	14	Plaintiff
Shushufindi	45 A	Texaco
Shushufindi	Central	Texaco / Plaintiff
Yuca	2 B	Texaco
Yuca	Central	Court

CHROMIUM VI

WELL / STATION		Information Source
Aguarico		Texaco / Plaintiff
Cononaco	6	Plaintiff
Guanta	6	Plaintiff
Guanta	7	Plaintiff
Lago Agrio	2	Plaintiff
Lago Agrio	6	Plaintiff
Lago Agrio	11 A	Plaintiff
Lago Agrio	Central	Plaintiff
Lago Agrio	North	Plaintiff
Sacha	13	Plaintiff
Sacha	14	Plaintiff
Sacha	18	Plaintiff
Sacha	53	Plaintiff
Sacha	85	Plaintiff
Sacha	94	Plaintiff
Sacha	Central	Plaintiff
Sacha	North 1	Plaintiff

WELL / STATION		Information Source
Sacha	North 2	Plaintiff
Sacha	South	Plaintiff
Shushufindi	4	Plaintiff
Shushufindi	7	Plaintiff
Shushufindi	8	Plaintiff
Shushufindi	13	Plaintiff
Shushufindi	18	Plaintiff
Shushufindi	21	Plaintiff
Shushufindi	24	Plaintiff
Shushufindi	25	Plaintiff
Shushufindi	27	Plaintiff
Shushufindi	38	Plaintiff
Shushufindi	48	Plaintiff
Shushufindi	67	Plaintiff
Shushufindi	45 A	Plaintiff
Shushufindi	South	Plaintiff

4. Petroecuador inherited an infrastructure designed to pollute

Even if some of the contamination in the eastern region occurred on Petroecuador's watch, the fact that Texaco walked away from a disaster of its own making does not absolve of liability for subsequent contamination. That is, there is no definable line at which Chevron's liability ceases and Petroecuador's begins. Petroecuador inherited Texaco's deeply flawed infrastructure and was trained in the ways of Texaco's deeply flawed practices[322]. As such, to the extent that Petroecuador's operations have resulted in any contamination, Chevron bears *at least* partial responsibility for that contamination as well.

As observed by Court expert Gerardo Barros: "The beginning of the Ecuadorian Hydrocarbon Industry is related, without a doubt, to the American Oil Company TEXACO; principal proponent of oil exploration in the Amazon, establishing precedents and operation guidelines."[323]

Texaco had a statutory and contractual obligation to put its successor in a position to operate its facilities in the Concession. The regulations for hydrocarbon activities state that *in accordance with article 31, section a) of the Hydrocarbons Act, operating*

[322] Paragraph 3.3.5 of the Agreement between the Ecuadorian State Petroleum Corporation CEPE and Texaco Petroleum Company, with reference to the operations of the CEPE-TEXACO Consortium, see cuerpo 93, Foja 10,209.

[323] Cuerpo 150l, Foja 159920, 1st Para.: Expert Report by Engineer Gerardo Barros.

companies shall comply with the provisions regarding hiring and training personnel and technology transfer."[324] On January 22, 1985, the General Manager of *Corporación Estatal Petrolera* ("CEPE," Petroecuador's antecessor) and Texpet's Manager signed an Agreement related to CEPE-Texaco Consortium operations. Clause 3.3 of said Agreement stated that "*[w]ith the purpose of gradually training the Corporation and its personnel, providing them with the necessary technical and operational capacity to assume such an important and complex operation, the parties agree to the following: 3.3.5 Texaco must provide to CEPE the training and education of its officers in TEXACO's operations, inside and outside the country, as necessary, the technical-institutional strengthening of higher education institutes on the oil industry and the necessary conditions to allow the appropriate Minister to control and regulate the hydrocarbon sector."* (emphasis added).[325]

There can be no dispute that Texaco transferred its technology to Petroecuador, and in view of the fact that the company had for many years possessed superior technology not employed in Ecuador, that transfer was unscrupulous, to say the least. In Chevron's response to the Complaint in this case, Chevron states that *"PETROECUADOR followed TEXPET as the operator of the PETROECUADOR-TEXPET Consortium from July 1, 1990 to June 6, 1992; date in which the 1973 Concession Contract ended and from which the State Company became the exclusive owner and responsible for the operation and facilities (...) As it is recognized by the plaintiff, PETROECUADOR continued with the Consortium operation, voluntarily using the same techniques that TEXPET had applied and which are being questioned in the complaint."* Chevron further admits that "*the operation of the Consortium areas has practically continued as it was operated by TEXPET."*[326]

In accordance with these obligations, Texaco trained the Ecuadorian personnel who later operated Petroecuador. But rather than training these personnel consistent with best practices in the industry, Texaco trained these personnel to operate its oil facilities in the same illegal and grossly negligent fashion that it had been carrying on for decades. Perhaps Chevron believed that if Petroecuador were trained in these poor practices, Chevron would have a better argument to avoid responsibility; perhaps Chevron was simply lazy, or worse yet, did not have any regard for Ecuadorian life. Either way, Chevron had a legal duty. And by virtue of the fact that Chevron discharged its legal and contractual duty in a manner that assured that its crimes would continue into the foreseeable future, Chevron's liability does not end at the moment it ceased operations.

---

[324] Regulation of Hydrocarbon Activities, RO 365 (January 29, 1986).

[325] Cuerpo 72, Opposite side of Foja 7748: "Agreement between the Corporación Estatal Petrolera ("CEPE," Petroecuador's antecessor) and Texpet Related to CEPE-Texaco Consortium Operations (Jan. 22, 2985[sic: 1985]).

[326] Cuerpo 3, Opposite side of Foja 260: Chevron's Response to Plaintiffs' Complaint (Oct. 21, 2003).

5. Petroecuador has not, for the most part, repeated the sins of Chevron

Notwithstanding the fact that Petroecuador was handicapped from the start by virtue of its inheritance of a system designed to pollute, the company appears to have righted many of the wrongs perpetrated by Chevron, further undermining Chevron's attempt to escape liability by pinning the blame on Petroecuador.

First, Texaco dumped produced water; Petroecuador now does what Chevron could have and should have done for many years – it re-injects produced water. Texaco's own audits revealed that during Texaco's operations production water was dumped directly into streams and rivers. Data compiled in one of Texaco's audits show that the amount of production water dumped by Texaco into the rainforest streams and rivers totaled over 16.5 billion gallons[327]. Data supplied in the audits also confirm that Texaco was aware that production water contained very high concentrations of the chemicals commonly found in production water, including petroleum hydrocarbons and chlorides[328]. Therefore, despite the fact that production water was toxic to the environment and people, and the fact that the standard practice in the oil industry since the 1940s has been to reinject toxic production water (*see* Section III.A.2(b)(i)), Texaco chose to openly dump more than 16.5 billion gallons of production water into rainforest streams and rivers. Texaco's own audits state that they mixed production water with other waste from the stations, including sewage and runoff from the process area, surface drains, and floor drains, and dumped this mixed water into nearby streams and rivers without treating or even testing the water before they dumped it[329]. Texaco's practices are summarized in their own audits as follows: "Numerous creeks and rivers flow through the concession area. Produced water, run-off from vehicle and equipment washing, surface run-off from the leases and stations as well as outflow from pits are diverted or discharged into these streams."[330]

When it took over oil field operations from Texaco, Petroecuador began a program of re-injecting production water back into the underground formation from whence it came, which has been the standard industry practice for many decades. For example, in Texaco's audit report of 1993, Texaco's auditors reported that "The discharge of oily produced water to the environment has been recently discontinued at the Yulebra, Culebra, and Auca Sur stations,"[331] and this change was implemented by Petroecuador. Petroecuador now reinjects all of the production water separated from the

[327] Cuerpo 89, Foja 10834-10837: HBT AGRA (1993). Page 5-6.

[328] Cuerpo 97, Foja 10684: Fugro-McClelland (1992).

[329] Cuerpo 89, Foja 10834-10837: HBT AGRA (1993). Page 5-10.

[330] Ibid. Page 5-11.

[331] Ibid. Page 6-20.

oil back into the underground formation.[332] This is a substantial improvement in environmental practices over Texaco.

Second, Texaco had no oil spill monitoring/detection or response program (indeed, it maliciously destroyed spill records), whereas Petroecuador does have one. Texaco's self-audit admits that Texaco never established any spill monitoring or response program for their operations in Ecuador. For example, some direct quotes from their audit reports include the following: "A response procedure in the event of an accidental product release or complaint has not been developed";[333] "[p]rior to 1990, no spill prevention methods were in place"[334]; and that Texaco had "no spill response plan" and "no environmental personnel" throughout their entire Ecuador operations.[335] The lack of any spill monitoring or response plan or environmental personnel for Texaco's entire operation in Ecuador is striking, and is grossly substandard compared to industry standards. A 1974 American Petroleum Institute document on standard oilfield practices devotes several sections to the importance of oil spill monitoring, contingency response plans, and oil spill cleanup. The document states that an oil spill contingency plan "should be prepared for each main area or facility", and it references a "Model Company Oil Spill Contingency Plan" that the American Petroleum Institute itself developed and recommends to its member industry partners, including Texaco.[336] Therefore, by the early 1970s it was clearly standard industry practice to monitor and prepare for oil spills, yet Texaco chose to not do anything in Ecuador throughout its period of operations.

Soon after Petroecuador took over operations, it began monitoring for oil spills and it established environmental task forces to deal with oil spill planning and response. According to Texaco's audit in 1993, "the use of spill prevention measures such as sonic testing began post-1990"[337] (let us recall that Petroecuador took over the oilfield operations in 1990). The audit also states that soon after taking over operations, Petroecuador formed the PETROAMAZONAS Environmental Unit which worked on improving oil spill control, reporting, response, and reclamation.[338] Therefore, Petroecuador promptly corrected Texaco's shoddy practices of having no spill monitoring or response plans in place during operations.

---

[332] CITE REYES DIRECTLY IF IN RECORD

[333] Cuerpo 89, Foja 10834-10837: HBT AGRA (1993). Page 5-10.

[334] Ibid. Page 5-13.

[335] Ibid. Table 5-2.

[336] "API Recommended Onshore Production Operating Practices for Protection of the Environment." 1974. American Petroleum Institute, Washington. D.C., API Publication RP 51. Pages 12-13.

[337] Cuerpo 89, Foja 10834-10837: HBT AGRA (1993). Page 5-13.

[338] Ibid. Page 5-13.

C. The Damage or Injury

The existence of damage has been established beyond cavil – the toxic chemicals in the water and soil in the eastern region speak for themselves, and must be fully remediated. The only issue remaining is the precise nature and economic value of those damages – *how precisely has Chevron's contamination affected the region and how can those effects be remedied*? As previously noted, the various categories of damage and injury and Plaintiffs' proposed economic valuation of those damages and injuries resulting from Texaco's conduct will be fully addressed at *Part Two* of Plaintiffs' Alegato Final, forthcoming. Here, Plaintiffs provide the Court a brief overview on this issue.

As an initial matter, it should be noted that Chevron is liable not only for damages that its acts and omissions have *already* caused, but also for "future" or "contingent" damage. Article 2336 of the Civil Code grants a right of action for "contingent damages which threaten indeterminate persons due to any person's imprudence or negligence."[339] Here, although some of the people who have been affected by Texaco's misconduct have been specifically identified, the number of affected population is, for obvious reasons, undetermined. As such, the popular action under Article 2336 is an appropriate mechanism for enforcing people's rights as set forth in Articles 2214 and 2229. The Supreme Court has noted that a party may be liable for "the predictable prolongation or worsening of a current damage, depending on the circumstances of the case and the experiences of life."[340] Similarly, and as noted above, Article 2236, which provides the basis for popular actions, specifically contemplates redress for "contingent damage" – the same as potential or future damage.[341] Indeed, not only is *expected* damage a suitable element of redress in a popular action, but it is in fact also the *core objective* of the popular action.

The damage claimed in this proceeding, as will be fully set forth at *Part Two* of Plaintiffs' Alegato Final, is, generally speaking: (1) the actual damage to the ecosystem (*e.g.*, soil, rivers, wetlands, etc.) and the actual injuries to people and their life styles resulting from that environmental damage (material losses, loss of culture, disease, etc.); and (2) the reasonably *expected* damages that will be suffered by the inhabitants of the affected regions well into the future. More specifically, Plaintiffs identify the following types of damages and injury, as set forth in the Complaint filed against Chevron with this Court on May 7, 2003, that shall be elaborated upon in *Part Two* of Plaintiffs' Alegato Final:

- **Ground and water contaminants continue to threaten the environment and health of the inhabitants, and these contaminants must be remediated.**[342]

[339] Ecuadorian Civ. Code Art. 2236 (formally Art. 2260) (Book IV).

[340] Whereas under section nineteen, the sentence of the first room of the Civil and Commercial Court of Justice. Judicial Gazette No. 10, October 29, 2002.

[341] Ecuadorian Civ. Code Art. 2236 (formally Art. 2260) (Book IV).

[342] Cuerpo 1, Foja 77: Plaintiffs' Complaint, at VI.1 (May 7, 2003).

There can be no dispute that when Texaco departed Ecuador, the company left behind open pits of crude oil, contaminated waterways, and abandoned piping, machinery, roadways, and buildings. This contamination left behind and the abandonment of man-made structures must be remediated to cleaning levels that are acceptable to both the environment and the human populations that inhabit the Ecuadorian Amazon.

- **Once contamination is remediated, Chevron must restore the rainforest ecosystem and repair the environmental damage it caused.**[343] Rainforest ecosystems support both local residents and the entire world. These ecosystems are a haven for plant and animal species, and provide food and water to countless Ecuadorians. Texaco's use of the Ecuadorian Amazon caused substantial damage to this careful ecosystem balance. The company's contaminant discharges have impacted food chains that must be restored, while the thousands of trees cleared by Texaco (causing erosion) must be replanted. To restore the Ecuadorian Amazon, Chevron must (in addition to remediating the land and water) hire specialized individuals to implement a recovery plan for flora, fauna, and aquatic life.

- **This restoration includes meeting the immediate healthcare needs and improving the health of the inhabitants of the affected towns (peoples) and monitoring the long-term effects of the contamination on their health.**[344] The areas in which Texaco operated, and which remain unremediated, have directly impacted the health of thousands of residents and have exposed all residents in the entire region to known toxic and carcinogenic contaminants. The effects of these long-term toxics on the region's residents have only begun to be felt – and a system is needed to assist those that suffer (or will suffer) health problems due to exposure to contaminants associated with Texaco's extraction operations. An improved health care program is needed to both manage the health risks associated with the petroleum-related contamination and to ensure that residents affected by Texaco's operations have the proper medical resources and attention. Chevron must also account for excess cancer deaths (both that have occurred and that are projected) which are attributable to oil contamination Texaco created and left behind in the Napo Concession area.

- **Part of this restoration includes ensuring that the residents of the region have access to clean drinking water.**[345] Evidence at trial has shown that Texaco's pollution of rivers, estuaries, lakes, natural streams, and artificial water streams has rendered the drinking water supply of the region's residents unusable and unsafe – the company released substances into the waterways through documented spills in production and transportation, used uncoated pools which contained produced water, and operated in such a way as to disregard the

[343] Cuerpo 1, Opposite side of Foja 79: Complaint, at VI.2

[344] Cuerpo 1, Foja 80: Complaint, at VI.2.d

[345] Cuerpo 1, Opposite side of Foja 79: Complaint, at VI.2.b

resident's use of the region's water supply for drinking purposes. As a consequence, hydrocarbons, metals, and other substances have contaminated the water that the region's residents have relied on for centuries. Chevron must provide a drinking water system that would be appropriate for the Amazon victims.

- **Finally, Chevron must account for and correct the impact its environmental contamination has caused on the cultural practices of the region's residents.**[346] It cannot be disputed that contaminated food and water sources, cleared lands, and open oil pits have had an overall negative impact on the ancestral practices of the region's people – people who maintain an intense interdependency with the ecosystem. Hydrocarbon-related activities in the Napo Concession area have simply changed the way in which the people in this area live their lives. Chevron must implement immediate measures to avoid the permanent extinction of certain cultural practices important to the people in the region.

[346] Cuerpo 1, Foja 79-80: Complaint, at VI.2.b-c

IV. CHEVRON'S LEGAL DEFENSES LACK MERIT

A. CHEVRON DEFENSE #1: "Chevron is not the proper Defendant."

Defendant "Chevron Corporation" – which used to refer to itself as "ChevronTexaco" until the company decided that removing the word "Texaco" might help it evade liability – argues that it cannot be held liable for the actions of Texaco Petroleum Company ("Texpet") because (1) Texaco Inc. ("Texaco") is not responsible for the acts of its separately incorporated subsidiary, Texpet, and (2) Chevron is not responsible for the acts of Texaco, even though the two companies merged in 2001, because that merger was in a "reverse triangular" form that allegedly left Texaco in existence as a separately incorporated subsidiary. On the basis of these contorted, formalistic arguments, Chevron asks this Court to throw out seven years' worth of arduous litigation and an evidentiary record of more than two hundred thousand of pages.

Fortunately, Ecuadorian law gives this Court ample discretion to ensure that such an injustice need not come to pass. Indeed, Article 169 of the Constitution demands that there be no sacrifices of justice in the name of formality.[347] Ecuadorian law, like the United States law that governs Chevron in its home state, allows courts to "lift the corporate veil" and discard other corporate formalities as necessary to achieve meaningful justice in certain circumstances.

In the United States, England, and countries throughout the world – when a corporate form is not respected and does not remain independently autonomous, the formal distinction between the legal entities is disregarded. The Supreme Court of Ecuador has recognized and applied this internationally accepted theory.[348]

The circumstances here clearly warrant lifting of the corporate veil and holding Chevron accountable for the acts of Texaco and Texpet. There was never any substantive separation between Texaco and Texpet when the companies generated massive profits exploiting oil and contaminating the concession area. Nor is there any substantive separation between Texaco and Chevron. In both cases, the parent company wholly owns, finances, and controls the subsidiary; they share executives and board members; and in critical respects they have held themselves out to the public as a unified company and reaped the benefits of such unification. As has been widely reported, Chevron recently won an arbitration award of $700 million against the Ecuadorian government to compensate *Chevron* for injustices supposedly suffered *by Texaco and/or Texpet* in Ecuador. The Chevron executive primarily in charge of the company's actions in Ecuador — who is also a vice-president of Texpet and a former executive of Texaco—told this Court directly that Chevron and Texaco "merged", an event that makes each company liable for the debts and liabilities of the other.[349]

---

[347] Political Constitution of the Republic of Ecuador, Art. 169 (2008).

[348] Sentence by the First Civil and Mercantile Chamber of the Supreme Court of Justice. File No. 393. Issued on July 8, 1999 at 9:00 a.m. Official Records No. 273 of September 9, 1999.

[349] Minutes of the judicial inspection conducted by the well Guanta 07. Foja 103,464

This Court should pay attention to these realities rather than Chevron's fictions.

1. The Ecuadorian legal system recognizes circumstances when it is appropriate to hold a parent company liable for the actions of a separately established subsidiary

The doctrine of lifting the corporate veil has been introduced and affirmed in Ecuadorian jurisprudence in at least three rulings of the Supreme Court of Justice.[350] These rulings have clearly defined the need for such a doctrine as well as the circumstances that justify its application.

First Civil and Mercantile Chamber of the Supreme Court of Justice stated the following in Sentence No. 393 of July 8, 1999:

> In principle the law does not confuse the legal entity with its members, and actions executed by legal entities are attributable to them and are their sole responsibility and are not attributable to their members and do not generate liability for the members, and that the actions of the representative of a legal entity, as long as they do not exceed the limits of the people are actions of the legal entity; and when they exceed these limits, they only obligate the representative personally, even though it should be noted that as a consequence of the deformation of the concept of legal entity or its abusive use, within the doctrine, the foreign jurisprudence and legislation, the theory of "lifting the legal entity veil" has started or the "dismissal of the legal entity", which "may constitute an adequate instrument or even needed to obtain the adjusted solutions to material justice, based on the exact value of the real interests at stake in each case; which means to rid the legal entity of its formal attire to prove what is underneath, or which is the same, to develop the legal thoughts as if there was no legal entity,", but warning that the use of the instrument is not open and it is not discriminated, but it shall be "for those hypothesis in which the interpreter of the Law concludes that the legal entity has been constituted with the intention of deceiving the law or the interest of third parties, or when as a result, not as an objective, the use of the formal coverage of the legal entity leads to the same disappointment effects. (ibid p.55)

[350] Sentence of First Civil and Mercantile Chamber of the Supreme Court of Justice. File No. 393. Ruled on July 8, 1999 at 9:00 a.m. Official Records No. 273 of September 9, 1999; Sentence of the First Civil and Mercantile Chamber of the Supreme Court of Justice at Numeral VI.. File No. 120. Ruled on March 21, 2001 at 11:15 a.m. Official Records No. 350 of June 19, 2001; Sentence of the First Civil and Mercantile Chamber of the Supreme Court of Justice. File No. 20 ruled on January 28, 2003 at 11:00 a.m. Official Record No. 58 of April 9, 2003.

The quoted passage is the first legal decision explaining the doctrine of lifting the veil. We are now elaborating about the different elements contained in this quote.

The Chamber notes that application of the doctrine is "appropriate" and may even be "necessary" to achieve meaningful justice. The Chamber directs courts not to be confused by formal legal separation but rather to examine "real interests at stake in each case," and allows a plaintiff to "rid the legal entity from of its formal attire to prove what is underneath the attire."

The only prerequisite of the doctrine is a "deformation of the concept of a legal entity or its abusive use." The Chamber notes that lifting the veil is appropriate both when the Court determines that the legal entity was constituted with the intention of deceiving or defrauding the law or the interests of others, ***or*** when similar fraudulent or deceptive effects are generated. That is, a court may apply the doctrine whenever it serves to avoid abuse, irrespective of whether the purpose of the use of the legal entity was to cause fraud or deception.

Subsequent rulings from the Chamber have confirmed and expanded on the doctrine and its application. For example, in Sentence No. 120 of March 21, 2001, the Chamber states:

> It has been noted in the last years an obvious and damaging deviation in the legal entities actions, since it is used as a leaning or deviated way to deceive the law or to harm third parties. It completely losses its purpose of being and of its economic and social justification; it is no more an ideal or moral entity and it becomes just a formal figure, a technical resource allowing to reach proditorious ends. As the doctrine indicates, "the reduction of it (the legal entity) to a mere formal figure, to a mere technical resource, is going to allow its use for other purposes, exclusive of its members and different from the legal reality created for this figure. This situation ends in the so called (abuse) of the legal entity, manifesting mainly in the scope of the principal corporate." (Carmen Boldo Roda, "the rejection of the legal entity in the private Spanish right", RDCO, year 30, Depalma, Buenos Aires, 1997.pp.1 and ss). In front of this abuse, we should react dismissing the legal entity, in other words, removing the veil which separates third parties from the true final recipients of the outcome of the legal entity, with the purpose of avoiding the corporate figure being deviated, used as a mechanism to harm third parties, creditors, who will be impaired or obstructed for reaching the compliance of their credits, to be legitimate holders or an asset of their credits, to be legitimate holders or an asset or a right who would be deprived or get rid of them. These are extreme situations which shall be analyzed very

> carefully, since the legal security may not be affected, but may not allow the fraud and abuse of corporate law with the excuse of protecting this value.

In short, whenever the corporate form is distorted and used as a simple tool in service of unlawful or illegitimate interests, the form loses its "reason of being and its social and economic justification." Without these justifications, the corporate form does not deserve respect by the law or the courts.

An important aspect of this sentence is that the Chamber addresses the type of damages that can result from the abuse of the corporate form. The Chamber considers as an example that the possible victims of such abuse might be creditors of the legal entity, who would see their claims for repayment obstructed even though the genuine responsible party had plenty of assets to satisfy payment. More broadly, the Chamber makes clear that the doctrine is concerned with any person who would be disposed of goods or rights that he or she is legitimately entitled to receive through illegitimate machinations of the corporate form. The plaintiffs in this case are precisely within this category, since if Chevron is allowed to shield its assets under the fiction of the separate and independent existence of its subsidiaries, the plaintiffs will be denied their right to live in a healthy environment, as well as their right to fair reparations in the form of a comprehensive remediation of the environment where they reside.

Another important ruling on the theory of lifting of the corporate veil in Ecuadorian law, Sentence No. 20 of January 28, 2003, stated:

> This Chamber has already warned about the obligation of each Trial Court that when the Chamber warns that there is a manipulation of the corporate figure, lifting the so called veil of the legal entity, and to penetrate in the field where it was hidden by such veil, to determine the true legal status and **who is the true responsible and liable party**. Since the opposite would be to protect the fraud and abuse of the law, issue that many never be admitted by a principle of public moral.

Here, it is important to note the Chamber's emphasis on the fact that the courts have not just the power but indeed the "obligation" to apply the veil-lifting doctrine when confronted with any "manipulation of the corporate figure".

Finally, in yet further elaboration of the obligatory application of the theory of lifting the corporate veil in appropriate cases, Sentence No. 135 of May 14, 2003 discusses the separation of capital between the legal entity and its partners or owners, along the way reaffirming what prior rulings on the lifting the corporate veil as a tool to counteract abuse of the corporate form:

> This nature of the legal entity [separation of capital and responsibilities between the legal entity and its members] has constituted a powerful engine for the economic development of the nations; but next to these advantages are cases of abuse of legal entities to avoid compliance with legal obligations, most often taxes, or to use it as a shield to deceive the rights of third parties. Therefore the doctrine allowing the judges to lift the veil of the legal entity and to adopt measurements about men and covered relationships is reinforced.

None of the foregoing jurisprudence should surprise Chevron, as it is largely consistent with the jurisprudence of the United States with which Chevron is presumably quite familiar. As leading U.S. corporate law scholars have long noted, a core responsibility of civil courts is to "exercise their discretion to prevent abuses and regulate the privilege of separate corporate capacities."[351] Under this authority, a U.S. court may refuse to allow a company to "avoid liability for past pollution through formalistic corporate sleight of hand."[352] U.S. courts are generally suspicious of corporate tactical maneuvering that threatens to extinguish the rights of victims to a practical remedy, and in particular of the "act of setting up corporate entities as 'shells' so as to shield principals from liability that is referred to as a 'shell game,'" and which "creates an unjust result by leaving plaintiffs unable to recover from the liable corporate entities."[353] Instead, U.S. courts will act vigorously within the available doctrine, including lifting of the corporate veil, to "ensure that a source remains to pay for the victim's injuries."[354] Similar to Ecuadorian law, the intent of a corporate party is less important than the fact that the result amounts to an abuse or misuse of the privilege of limited liability. The New York court just referenced affirmed the principle that the limited liability effect of a transaction may under certain circumstances "transcend[s] the intent of the parties to the business arrangement since the rights of an injured third party are involved."[355]

---

[351] Cox & Hazen, CORPORATIONS 112 (2d ed. 2003).

[352] In re: *Acushnet River & New Bedfor Hamilton v. Carell*, 243 F.3d 992, 1004 (U.S. 6th Cir. 2001). d Harbor Proceedings, 712 F. Supp. 1010, 1014 (U.S. D. Mass. 1989).

[353] Hamilton v. Carell, 243 F.3d 882, 1004 (U.S. 6th Cir. 2001).

[354] Grant-Howard Assoc. v General Housewares Corp., 63 N.Y.2d 291 (U.S. N.Y. 1984).

[355] Idem.

To summarize the treatment given in Ecuador to the theory of lifting the corporate veil, the following points can be emphasized:

(1) In providing a vehicle for the formation and operation of legally separate corporate entities, the Legislature recognized as a general matter the importance of allowing corporations to separate the capital and obligations a *bona fide* corporate entity from the capital and obligations of its members, owners, partners or shareholders. In the ordinary case, a legal entity is solely responsible for its own debts incurred and the sole beneficiary of any credits owed. When the corporate form is respected and utilized for normal commercial purposes, the corporate form is respected by law as well.

(2) Nonetheless, the Supreme Court of Ecuador has recognized a theory that allows the "lifting of the corporate veil" which allows in certain situations for a court to treat separate legal entities as one entity for purposes of liability. In these situations, the corporate form must be discarded in order to avoid manifest injustice and hold a party responsible liable for actions taken in bad faith or in a manipulative manner.

(3) As a matter of law and policy, corporations who have caused harm to third parties — such as individual victims of the corporation's tortious acts — cannot use the fiction of multiple legal entities insulated by corporate limited liability to avoid responsibility. Whereas a normal commercial creditor has the capacity to negotiate for protection prior to entering into a contractual relationship with an entity, even an undercapitalized subsidiary, by obtaining guarantees, liens, or other secured interests on the entity's assets or from the entity's associates, or even by obtaining third-party insurance in guarantee of the contract, third-party victims (sometimes called an "involuntary creditors") lack this prior opportunity to negotiate and account for risk, or to modify their behavior in order to better protect themselves. If injured by an undercapitalized subsidiary, innocent third-party victims might be left to bear all the harm of the injury while the party causing the injury is free and clear. Clearly, any mature system of justice must provide some redress in such cases to avoid manifest injustice, and the redress afforded by Ecuadorian law, as well as many other legal systems, is the lifting of the corporate veil.

As discussed below, the evidence presented to this Court makes clear that this case presents a situation where it is appropriate — indeed, obligatory — to lift the corporate veil and hold Chevron liable, through its merger with Texaco, for the decades of contamination that resulted from Texpet's operations in the Napo Concession area. Texaco and Texpet flagrantly disrespected the separation of responsibility that is supposed to follow separate incorporation. Instead, they operated indistinguishably,

intermingling assets and sharing corporate officers and directors. Texpet was never genuinely autonomous from Texaco, but rather was a mere façade for Texaco's daily operations in Ecuador. Similarly, Texaco today, if it does indeed still exist as Chevron maintains, has no meaningful independence from Chevron: it is registered at Chevron's address, has no settled assets of its own, but rather exists as a shell company. It may perhaps only exist to provide support for Chevron's attempt to evade responsibility in this case. In any event, because Chevron and Texaco never respected the corporate form, and because Texpet's horrendous acts severely injured plaintiffs and the environment of the concession area, this Court must lift the corporate veil and demand accountability from Chevron itself.

Chevron's attempt to now pretend that it and Texaco and Texpet are genuinely independent and invoke the corporate veil to avoid liability is clearly an abuse and manipulation of the legal instrument of corporate separation, and fraudulent perhaps by design but in any event *in result*, which, as discussed above, is all that is required to pierce the corporate veil under Ecuadorian law. Moreover, Chevron's attempt to shift liability to flagrantly undercapitalized entities (Texaco and TexPet) is also clear evidence of fraud (by result or by intent) sufficient to pierce the corporate veil. Finally, the fact that Chevron is invoking this immunity strategy even after explicitly promising to the U.S. court and the plaintiffs that it would submit to litigation of these claims in Ecuador and abide by any judgment, is simply more evidence of fraud that justifies lifting the corporate veil in this case.

2. The Legal Distinction Between Texpet and Texaco Should Be Entirely Dismissed, as Texaco Controlled TexPet, Directed the Operations of Texpet, Profited from Texpet, and Only Now Selectively Uses Texpet as a Shield to Avoid Liability

If this Court were to respect the distinction between TexPet and Texaco as claimed by Chevron, it would allow Chevron to perpetuate a fraud. The companies' records show clearly that, in fact, Texaco and TexPet operated as one company – the distinction between Texaco and TexPet is an artificial one. The reality is that Texpet was nothing more than the operative arm of Texaco. Chevron, an entity formed out of a merger with Texaco, has inherited all of Texaco's liabilities just as it maintained its own. Chevron should be held liable for TexPet/Texaco's misconduct.

The key prerequisite to justify lifting of the corporate veil is a finding of "manipulation" or "abuse" in the intended purpose or actual use of the corporate form. Where the corporate form is not being used to genuinely allocate responsibilities amongst parties — for example, where one party is wholly owned, financed, and controlled by the other party — and yet the involved entities nonetheless try to claim the benefits of limited liability, an abuse and manipulation is self-evident. Lifting of the veil in such a case is necessary so that the responsible party "in fact" becomes the responsible party under the law. And of course, where abuse of the corporate form is evinced with intent to cause harm, the corporate form need not be respected by a court.

In this case, evidence shows that Texaco directly and completely controlled the daily operations of TexPet. Texaco not only owned 100% of Texpet, but also provided all its finances and received all its profits, and swapped executives and directors between the two companies as if they were merely different offices or departments. Texpet never maintained any significant business apart from Texaco or acted independently of the interests of Texaco. And perhaps most critically, Texpet is (and has always been) woefully undercapitalized. Texpet could not afford to pay for even a fraction of a percent of the cost of the remediation that plaintiffs demand. This is exactly as Texaco and Chevron intended: all of the benefits of an operating entity in Ecuador, but none of the risks. This is transparently abusive and Ecuadorian law obligates this court not to sanction such an abuse. (It is important to note that the fact that Texpet is a "fourth-tier subsidiary" as Chevron has at times claimed does not at all affect the ability of this Court to lift the corporate veil. The Court should look to the relationship between Texaco and Texpet, which as discussed below was one of complete control. If Texpet were a 100th-tier subsidiary, the analysis would be the same and the veil should be lifted.)

Two of the clearest indicators that the apparent separation between the companies is a mere formality, likely established to avoid liability resulting from litigation such as the current one, are the fact that company executives moved back and forth between Texaco and Texpet without any concern for separation, and the fact that Texpet was far undercapitalized and in general economically dependent on Texaco, and later Chevron.

(a) *Executives shared by Texpet and Texaco*

The archives of Texpet and Texaco, much of which are now part of the record in this case, demonstrate that the same directors and officers often directed both companies. For example, Robert C. Shields held the position of Vice-President of Texaco from 1971 to 1977 while simultaneously serving as Chairman of the Board of Directors of Texpet.[356] Part of Shields' responsibility as Vice-President of Texaco was overseeing Texaco's operation of the Napo Concession.[357] Through his post as Chairman of the Board of Directors of Texpet, he used Texpet to fulfill these responsibilities just as he would have had he been in charge of a division of Texaco operating directly in Ecuador.[358] While serving as Chairman of Texpet, he theoretically owed duties to the independent interests of Texpet, but in reality he was just as accountable to the directors and senior management at Texaco as he was in his position as a Texaco vice president. Archive documents reflect that Shields was involved in countless matters, both major (such as directing the construction of bridges)[359] and mundane (such as hiring caterers).[360] Of

[356] Foja 6515: Deposition Transcript of Robert M. Shields., Maria Aguinda et al. vs. Texaco Inc., No. 93-7527-CIV (August 23,1995).

[357] Foja 6614: Dep. Transcript of Robert M. Shilds (August 23, 1995).

[358] For instance, when making certain requests to his Texaco superiors related to the Napo concession, he would simply "the Ecuadorian Division," without further explaining whether he's referring to Texpet or Texaco. Foja 6827-6828.

[359] Foja 6833: Dep. Transcript of Robert M. Shields (August 23, 1995)

[360] Foja 6830: Dep. Transcript of Robert M. Shields (August 23, 1995)

course, he also had control over the company's environmental policies, which are at the heart of this suit. Whether he exercised authority in all these matters as chairman of Texpet or vice president of Texaco is hard to determine — illustrating the reality that there was no meaningful separation between the companies.

Another shared executive who served for both Texpet and Texaco and illustrates the close relationship between them was Robert M. Bischoff, who throughout his career held positions variously for Texaco and Texpet. Indeed, while working as the Vice-President of the Texaco's division of production for Latin America, Bischoff often indicated that he was working for Texpet, illustrating the fact that Texaco at that time considered Texpet to be simply an operational arm of the same company.[361] Instances in which Bischoff did bother to make the distinction in fact support the inseparability of the companies, rather than detract from it. For example, Bischoff described at a deposition under oath how he had to ensure that Texpet contracts that exceeded certain values received the necessary approval by counsel and executives at Texaco,[362] a further example of how the Texpet/Texaco structures were, in fact, indistinguishable.

The tradition of executives serving simultaneously or rotating back and forth continues today with Chevron and Texpet. An example is Ricardo Reis Veiga, who worked for Texaco throughout the 1980s and 1990s, and then, naturally, was integrated into Chevron following the 2001 Chevron-Texaco merger. Throughout all this time, Mr. Reis Veiga also served as an executive at Texpet, though it would seem all but impossible to sort out in what instances he formally acted for what company. Mr. Reis Veiga testified at the judicial inspection of the Guanta 7 drilling platform at which he described himself as "the Vice-President of Texaco Petroleum Company."[363] When asked if he also had links with Chevron, he replied: "Yes, I do have links with Chevron. *Of course I have links with Chevro*n. But I did not have links with Chevron at [the time of the remediation] because it was actually not *merged* yet."[364]

[361] Foja 6630-6631: Deposition Transcript of Robert M. Bischoff, Maria Aguinda et al. Vs. Texaco Inc., 93 CIV. 7527 (BDP) (August 17, 1995).

[362] Foja 6639: Dep. Transcript of Robert M. Bischoff (August 17, 1995).

[363] Cuerpo 943, Foja 103464: Judicial Inspection Act, Guanta 7 (April 5, 2006).

[364] Cuerpo 943, Foja 103464: Judicial Inspection Act, Guanta 7 (April 5, 2006).

(b) *Economic Dependence*

If Texpet was a separate company from Texaco, it would be expected that this company would count on enough money to take care of its businesses and financial autonomy, as any other company. However, because Texaco purposefully kept Texpet undercapitalized, there are hundreds of documents from the Board of Directors of Texaco showing the contrary: Texaco systematically paid out millions of dollars to Texpet; otherwise it would have not been able to operate.[365] What becomes clear is a picture that Texaco systematically financed Texpet. Because Texaco did not recognize Texpet as a separate and distinct entity, neither should this Court.

(c) *Justification of the theory application*

In accordance with the theory of lifting the corporate veil, and as it was understood by our Supreme Court, the Judge has the duty of lifting the veil when the Court finds a "manipulation of the corporate figure." Where a legal entity lacks the true ability to make independent decisions, lacks appropriate capital to operate autonomously, and is considered by its own executives and directors as a mere division of a larger entity – it cannot be said that the legal form of the entity should be respected. This case – involving the lives and livelihoods of thousands of people residing in the area of Texpet/Texaco operations – may be the first time that the company is actually attempting to respect the corporate form it created (to avoid liability). It would be manifestly unfair to allow the corporation to avoid liability based on the existence of a selectively applied formalistic legal distinction.

3. Chevron Assumed the Liabilities and Obligations of Texaco

Chevron has claimed that, despite the "merger" effected between it and Texaco in October 2001, the two companies nonetheless remain distinct and neither can be held liable for the acts of the other. This flies in the face of the basic Ecuador and U.S. law pertaining to the merger of corporate entities that a merger binds together the assets *and liabilities* of the constituent companies, and that liabilities cannot be extinguished by merger. Section 341 of the "Corporate Law" clearly states that "the surviving company will assume the absorbed company's debts".[366] Also, the law of the U.S. state in which Chevron is technically incorporated states clearly that "all debts, liabilities and duties of the respective constituent corporations shall thenceforth attach to said surviving or resulting corporation."[367]

---

[365] Examples of such acts by the Board of Directors can be found at Fojas 2166-2169; 2176-2178; 2182-2185; 2351-2356; 2427-2432.

[366] Article 341, Ecuador Companies Act, 1999: The surviving company will be responsible for paying the liabilities of the absorbed and assume, for this reason, the responsibilities of a liquidator against creditors of the latter.

[367] Del. Corp. Code art. 269 (Year)

Chevron attempts to run around this basic tenet of corporate law by asserting that the merger it performed in October 2001 was of a "reverse triangular" variety, in which it technically merged with a shell company created solely for purposes of accomplishing the merger, which at the same time acquired Texaco, resulting, Chevron claims, in the continued existence of Texaco as a subsidiary of Chevron.

Allowing this argument to divest this Court of jurisdiction at this point after seven years of litigation would amount to the ultimate sacrifice of justice in the name of formality. The fact that the merger between Chevron and Texaco was a merger for all practical purposes is as clear as the name chosen for the newly merged company: "ChevronTexaco." This is the only entity that was known to plaintiffs, in part because of Chevron's countless public statements affirming the transaction as a "merger," and it remains the only genuine independent entity today capable of responding to plaintiffs' claims. In any event, even if Chevron's "reverse triangular" transaction were given the legal effect Chevron wishes, the company should still be found liable by this Court by applying the doctrine discussed above to lift the corporate veil directly between Texpet and Chevron.

(a) ***Chevron's Public Statements Note the "Integration" of the Two Companies and Secured Shareholder Approval of the Merger on this Basis***

Though Chevron now claims that it only "acquired" Texaco as an independent subsidiary through a reverse triangular transaction with a shell company, the reality is that the merged entity, ChevronTexaco, made clear in a variety of different ways and in different forums that Chevron and Texaco had "merged" and the two companies' vast and overlapping management and operational infrastructures would ***not*** be maintained separately and independently, but rather would but fully integrated, in the style of a merger. This was not merely publicity language: behind it lay the primary purpose of the transaction, namely increased efficiencies and consequent profitability by eliminating redundancies between the two systems; it was also of key legal import to antitrust and competition authorities, who likely would have treated the transaction differently if it was an acquisition rather than a merger.

The companies issued a series of bulletins and press releases before, during and after the process, which referred to the combination simply as a merger. As described by its lead press release at the time, *"Chevron Corporation and Texaco Inc. announced today a **merger** which will create a company, ChevronTexaco Corporation, considered to be among the largest and more competitive international energy companies worldwide."* [368] The press release continues that "the **merger** brings together two energetic leader companies,"[369] and goes on to characterize the transaction as a **merger** at least a dozen more times.

Once plans were in place for the marriage of Texaco and Chevron, the corporations moved quickly to integrate the resources of the companies from the smallest to the highest level, including a fully integrated board of directors and executive leadership slate. Another press release describes that *"Chevron Corp. and Texaco Inc. announced today the assignments of the executives who will lead the **new ChevronTexaco Corporation** after the conclusion of the proposed merger."* [370] Executives of both Chevron and Texaco shared leadership roles in the newly formed company: as noted in the press release, *"the President and Executive Director of Chevron, Dave O'Reilly will continue holding the same position in ChevronTexaco. The Vice-President of Chevron, Richard Matzke, and the President and Executive Director of Texaco Inc., Glenn Tilton will have the position of Vice-Presidents. These three executives will constitute the new Executive Presidency, which will be in charge of overseeing the operations of the new company."* [371] Of course, no executives from "Keepup, Inc.," the entity that Chevron now claims merged with Texaco, were appointed. The very idea is ridiculous because Keepup was a transparent shell company, but it illustrates the ridiculousness of Chevron's assertion that it should escape liability now because of the same legal fictions.

(b) *Filings with the United States Federal Trade Commission and the European Commission Reveal That the United States Government Treated the Combination of Texaco and Chevron as a "Merger"*

[368] Cuerpo 1309, Foja 140759: Chevron Press Release (Oct. 16, 2000).

[369] DEL. CORP. CODE art. 269 (Year)

[370] Cuerpo 1309, Foja 140759: Chevron and Texaco Announce Leadership Team and Organization Structure for Proposed Post-Merger Company, Chevron Press Release (Feb. 12, 2001).

[371] Cuerpo 1309, Opposite side of Foja 140781: Chevron Press Release (Feb. 12, 2001).

Even international regulatory authorities considered the combination of Texaco and Chevron a "merger" without regard to creation of Keepup. For example, an announcement issued by the European Commission noted that "the European Commission has approved the **merger** between the United States oil companies Chevron Corp. and Texaco Inc." In using this language, the Commission clearly relied on representations by Chevron and Texaco that the transaction was in substance a merger.

Similarly, filings with the Federal Trade Commission ("FTC"), the U.S. antitrust/competition agency tasked with approving the companies' merger in the United States, also show the companies representing the transaction as a straightforward "merger." Both FTC and European Commission reviews are marked by lengthy and detailed factual investigations into the companies' market positions and commercial practices. When Texaco merged with Chevron, the FTC reviewed and approved the transaction as a "$45 billion merger . . . of two of the world's largest integrated oil companies."

Again, this language is not just incidental. Although antitrust authorities will themselves often look past the veils of corporate formalities and make their decisions based on the *de facto* reality of a transaction, differently structured transactions still entail different legal consequences (such as tax consequences), sufficient to presume that companies to a transaction do not choose terms lightly or arbitrarily.

(c) *The Companies' Communications With Their Own Shareholders Represent that Chevron and Texaco Accomplished a "Merger"*

In yet another example, contemporaneous documents reveal how Chevron and Texaco both represented to their shareholders that this was a merger. One press release notes that: "Chevron Corp. announced today that the shareholders have voted approving the proposed **merging** with Texaco." Moreover, in the annual report "ChevronTexaco" submitted to shareholders and to the U.S. Securities and Exchange Commission, the financial statements of Chevron and Texaco were fully consolidated.

In sum, the combination of Texaco and Chevron was characterized by the companies to the entire world, including its shareholders, as a simple merger. The foregoing is but a sample of the way that Chevron Corp., Texaco, and the eventual ChevronTexaco characterized and publicized the joining of its interests to third parties, the public in general, and its shareholders and regulators as a simple merger.

When plaintiffs re-submitted their claims in this Court following the proceeding in New York, which it did *at the insistence of Chevron*, which was then calling itself "ChevronTexaco" on the legal briefs it submitted to the New York courts, they properly named "ChevronTexaco" as the defendant. Plaintiffs were safe to name ChevronTexaco because Ecuadorian courts hold clear power to look past frivolous technicalities such as that Chevron has interposed and demand accountability from the genuinely responsible party.

(d) *Acts and Statements By Chevron's Own Executives and Agents*

Once again, Chevron's own acts and statements belie its manipulative argument that there is any significant separation or independence between Chevron and Texaco or Texaco and Texpet. As noted above, Ricardo Reis Veiga is a company executive who has worked in various capacities for all three companies over the years, often simultaneously and without any respect for any genuinely separate corporate identity. Mr. Reis Veiga tried to explain his multiple roles when he testified briefly at the Guanta 7 judicial site inspection as stated in sheet 103.464 of the dossier:

> Question from Attorney Fjardo:: What position did you have in Texpet or Texaco Petroleum Company and position do you currently have in Chevron? Answer from Ricardo Reis Veiga:
>
> I am the Vice-President of Texaco Petroleum Company. I am a Lawyer as profession. I am responsible for all the legal issues of the company in Latin America.
>
> QUESTION:: Don't you have any links with Chevron?
>
> ANSWER:: Yes, I do have links with Chevron. Of course I have links with Chevron, but I did not have links with Chevron at that time because it was actually not merged yet, but I have positions related to the operation as operation officer and I have professionally other responsibilities as a company employee.

Notably, Mr. Reis Veiga still in 2006 refers to the "merger" of Chevron and Texaco. Although Mr. Reis Veiga struggles to suggest that he somehow juggles independent roles at distinct and independent companies, the comment instead displays the reality of how irrevocably blurred and indistinguishable the boundaries between all the companies have become even in this life-long employee's head.[372]

4. Chevron's Liability for Texaco's Acts Has Been Established in the United States

Perhaps not surprisingly, the issue of whether Chevron or ChevronTexaco is liable for the acts of Texaco prior to the companies' merger has already arisen in U.S. courts. These proceedings have had the benefit of liberal U.S. "discovery" laws, which have allowed parties to those proceedings to take sworn statements from current and

[372] Another key player on the defendant's side is Mr. Rodrigo Pérez Pallares, who purports to be the legal representative or agent of Texpet in Ecuador. Nonetheless, it was Mr. Pérez Pallares who, at the initiation of this litigation against Chevron (and not Texpet), signed a check to cover some costs of the case. The check is revealing: if Chevron and Texpet were really two distinguishable entities, why would Texpet's legal representative/agent sign financial instruments on behalf of Chevron?

former officers of Texaco and Chevron; the proceedings have even included expert testimony by corporate administration experts on the subject. The conclusion is clear: Chevron functionally merged with Texaco; Texaco only exists as an asset-less "non-operating company," in the words of one company officer, which has no assets but instead relies on Chevron to pay its expenses, including its taxes, or relies on funds in an account in Chevron's name; and accordingly Chevron has been found to be the appropriate defendant for harms alleged to have been caused by Texaco. In one such case, *Simon v. Texaco, Inc.*, Cause No. 2007-110 in the Mississippi Circuit Court of Jefferson County, Mississippi, an expert with advanced degrees in law, accounting, and business fully examined the relevant facts of the merger transaction and the operating practices of the companies and concluded that Chevron should be held liable for Texaco's acts on no less than seven different bases, including that (1) Chevron is a successor in interest to Texaco; (2) the Chevron-Texaco transaction was a *de facto* merger; (3) the *alter ego* theory of liability applies; (4) Chevron and Texaco operate as a single enterprise; (5) the theory of agency and *respondeat superior* applies; (6) Chevron has aided and abetted Texaco and ratified Texaco's prior acts; and (7) the theory of piercing the corporate veil applies. *See* Glenda B. Glover, Ph.D., J.D., CPA, *Joint Liability Analysis Report: Chevron Corporation and Texaco* (Sept. 29, 2009).

You, Mr. President do not need to review an issue which courts far closer to and more familiar with the relevant jurisdictional facts have already examined and on which they have reached conclusions that accord with Ecuadorian law.

* * *

Chevron has been quick to obtain the benefits of Texaco's legacy in Ecuador when it perceives that it might profit off that legacy, a leading example being Chevron's pursuit of a $700 million windfall that an international arbitration tribunal has ordered be paid to Chevron by the Ecuadorian government to compensate the company for delays by the Ecuadorian judiciary in resolving seven breach-of-contract cases originally brought by Texpet when it was wholly owned and controlled by Texaco.[373] The close relationship between Texaco and Texpet gave Texaco the benefits of direct and complete control over its Ecuador operations, far more control than it would have had if Texpet were genuinely independent. The full integration by merger of Texaco and Chevron gave the combined company greater efficiencies and economies of scale, far more than it would have had if Texaco had been simply acquired, kept separate, and operated independently.

[373] *See Chevron Corporation (USA) and Texaco Petroleum Company (USA) v. The Republic of Ecuador*, UNCITRAL, PCA Case No. 34877, Partial Award on the Merits ¶¶ 134-35 (March 30, 2010).

Having enjoyed all the benefits of unity, it is a patent abuse of the corporate form for Chevron to now switch positions and claim that it and Texaco and Texpet should be considered as legally distinct and be given the privilege of limited liability. The abuse is all the more apparent when it is considered that the purpose of the maneuver is to avoid responsibility for its terrible environmental policies, which would leave the affected communities and the environment itself to bear the whole burden of the very same harms that earned the company so much in saved costs during its time as operator of the Concession. This Court is empowered to avoid such a result by lifting the corporate veil between the entities, and in the interests of justice it should do so.

B. CHEVRON DEFENSE #2: "This Court lacks jurisdiction over Chevron."

Chevron secured a dismissal of the *Aguinda* case on "inconvenient forum" grounds from the United States Federal Court in New York by promising that court that it would not challenge the jurisdiction of the courts of Ecuador. But Chevron is never one to worry about a misrepresentation to a court – the very first argument made by Chevron during the "Conciliation Hearing" was that this Court lacks jurisdiction over Chevron.[374] Chevron's lawyer has stated that "there [is] absolutely no legal grounds for suing ChevronTexaco" and that the judge "lacks absolutely all jurisdiction" over the company. The purported basis for Chevron's assertion is simple: the company denies that ChevronTexaco is the successor of Texaco.[375] But as set forth above at Section IV(A), this argument is wholly without merit. This Court clearly possesses jurisdiction over Chevron.

C. CHEVRON DEFENSE #3: "This Court does not have jurisdiction to decide this action."

Chevron argued as early as the "Conciliation Hearing" that "the legal statutes that serve as a basis for this action, that is, the Environmental Management Law, enacted by the National Congress in the year 1999, […], cannot be applied to this controversy, because of the principle of non-retroactivity of the law."[376] Chevron has repeated this meritless argument throughout the trial.

What Chevron fails to address, however, is that the principle of non-retroactivity only governs *substantive* law. By express order of section 7, rule 20, of the Civil Code, procedural law is excluded from this principle:

[374] Foja 243

[375] Fojas 243-244

[376] Foja 245 and 246

> "The Laws in regard to the reporting Judge and trial practice, prevail over the foregoing, from the moment they should start governing.[377]

The second part of Article 42 provides that

"[t]he Presiding Judge of the Superior Court of Justice for the place where the environmental impact occurs shall be the competent judge to try actions filed as a consequence thereof." [378] There can be no doubt that Plaintiffs' reliance on the Environmental Management Law is purely procedural in nature – as discussed at Section IV(D), *infra*, there is no new substantive right implicated here. In accordance with the provisions of Rule 20 of Article 7 of the Civil Code, this Court is the competent authority to try this case, notwithstanding the frivolous objections raised by Chevron."

D. CHEVRON DEFENSE #4: "The law cannot be applied retroactively."

Chevron argues that this lawsuit is improper because it has been brought under a provision – Title VI of the Environmental Management Law – which did not exist at the time Texaco was operating in the Napo Concession. This argument is a red herring.

As an initial matter, Chevron's myopic focus on the Environmental Management Law is false. Title VI is one of the *many* grounds for this lawsuit identified in Plaintiffs' Complaint – indeed, it is the *last* provision identified in the Complaint.[379] Long before the enactment of Title VI, Article 2236 (2260 in the previous codification) of the Civil Code broadly granted a people's action "*in all cases of contingent damages which threaten indeterminate persons due to any person's imprudence or negligence*." As discussed at length above, in this case, the toxins deliberately released into the soil and water by Chevron threatens indeterminate persons. Therefore, this lawsuit is plainly authorized by Section 2236 *alone*, without regard to the Environmental Management Law.

[377] Section 7, Rule 20 of the Civil Code

[378] Second paragraph of Article 42 of the Environmental Management Act

[379] See Foja 79 of the record. Demand for the actors.

Moreover, the Plaintiffs' reliance on the Environmental Management Law is entirely appropriate. Article 41 of the Environmental Management Law, titled "Safeguarding of Environmental Rights," merely creates a private right of action to denounce violations of the environmental laws and regulations that existed while Texaco operated in the Napo Concession.[380] Article 41 does not make unlawful conduct, which was lawful at the time it occurred – Chevron cannot claim that it is being blindsided by punishment for conduct that was perfectly acceptable when it occurred. The calculus might be different if Plaintiffs were relying on a substantive environmental provision that rendered unlawful conduct that was previously innocent, but that is not the case. To the contrary, Chevron broke a myriad of laws and violated numerous regulations in force at the time it operated in Ecuador, and should have known that it may be required to pay the price for those decisions. Chevron is not prejudiced by the fact that the people can now enforce the laws and regulations that have been in place for decades.

Finally, it is worth noting that a people's right of action to denounce the transgression of environmental laws applicable in this case existed long before the Environmental Management Law was enacted. As referenced at Section III.A.2.(a) above, the Maritime Police Code,[381] which identifies as unlawful the *"To declare of public interest the control of contamination, produced by hydrocarbons, in territorial water, (...), as well as into the rivers and navigable waterways (...) Art 115 A, Prohibit to discharge or dump to the water of (...) to the rivers and navigable waterways, hydrocarbons or their residues, as well as other toxic substances coming from hydrocarbons, harmful to the marine ecology, Article 115 B. Likewise, prohibit industrial plants and refineries (...) similar facilities to discharge hydrocarbons or their residual to the sea, shores and beach areas, as well as to the rivers and navigable waterways, not having these elements being treated before, to convert them in harmless, having to permanently keep special appropriate equipment, for this purpose. (...) Article 115 C*

For all of the foregoing reasons, Chevron's argument that it cannot be subject to retroactive liability is frivolous.

E. CHEVRON DEFENSE #5: "Plaintiffs' claims are barred by the statute of limitations."

Like Chevron's argument concerning this Court's jurisdiction, Chevron's argument that the statute of limitations has expired rests solely on its frivolous assertion – dissected above – that Chevron is not a successor to Texaco. Indeed, as a condition of the "inconvenient forum" dismissal obtained from the United States Federal Court of New York, Chevron promised that it would not raise the very statute of limitations defense it has raised before this Court. The U.S. Federal Court of Appeals held: "The district court's judgment dismissing for *forum non conveniens* is AFFIRMED, subject to the

---

[380] Ecuadorian Environmental Management Law, Art. 41.

[381] Maritime Police Code. R.O. 643, published in 1960 and reformed of September 20, 1974.

modification that the judgment be conditioned on Texaco's agreement to waive defenses based on statutes of limitation for limitation periods expiring between the institution of these actions and a date one year subsequent to the final judgment of dismissal."[382] Chevron is bound by Texaco's promise.

F. CHEVRON DEFENSE #6: "The lawsuit is barred by a release from liability."

After the *Aguinda* case was filed in the United States, Chevron negotiated a plan with the Ecuadorian government—but without even the merest consultation with the affected Amazon communities—to "remediate" a small portion of the contaminated sites in exchange for a release from the Ecuadorian government's legal claims against the company. In retrospect, this appears to be no more than a tactical maneuver: Chevron structured the deal bizarrely so that it technically achieved the legal release even before it completed the remediation, and the first thing it did upon receiving the release was to use it to try and undermine the communities' case in New York. Nonetheless, Chevron continues to claim that the very existence of the present lawsuit is a violation of the release. Chevron's defense is utterly frivolous for three reasons. First and foremost, the "release" does not purport on its face to cover Plaintiffs' claims – and there is indisputable evidence that the release cannot be construed in such a manner. Second, even if the release could somehow be read to extend to the Plaintiffs, the government most certainly would not have the authority to release Chevron from third-party claims. Third, aside from the fact the release is not applicable to the claims in this litigation, the release was conditioned on a fraudulent cleanup. Thus the release is null and void and Chevron would not be entitled to hide behind it.

1. The Release Does Not Extend To Third-Party Claims

The release that Chevron relies upon consists of three agreements. The first of these set out the overall purpose and scope of the agreement, called a Memorandum of Understanding, and was entered into in 1994 by the Ecuador government, PetroEcuador and Texaco (the ""MOU"").[383] In the MOU, the government and Petroecuador promised to release ***their claims*** against the company. This was significant consideration: Texaco had promised in the consortium agreement to build a world-class oil production infrastructure for delivery to the government in 1990, and it certainly had the technological prowess to do so, but in fact what was delivered was a bottom-of-the-barrel infrastructure prone to spills and incapable of treating or reinjecting its own toxic wastes. Instead, the contamination had to be dumped directly into the environment. The claims that the government might have brought against Chevron were potentially very large.

[382] *Aguinda v. Texaco*, Inc., 303 F.3d 470; 480 (2d Cir. 2002) (emphasis added).

[383] Memorandum of Understanding between Ecuador, PetroEcuador, and Texaco (1994).

The parties negotiating the MOU were well-aware of the plaintiffs' claims in New York and even anticipated that Chevron might try to stretch the release *post hoc* to apply it to those claims. The government and Petroecuador would not allow this. A comment on an early draft of the MOU by Ecuadorian Foundation for the Preservation of Nature noted:

> TEXPET´s release of obligations concerning the environmental impact may release the company ***of its responsibilities exclusively towards the Government, but not towards private individuals, so clarification is required in this respect.***

The clarification was deemed necessary because at the time Texaco was pushing for language that, although it was still limited to releasing the government's and Petroecuador's claims, had more margin for Texaco to argue that the release was broader. That language described the goal of the proposed agreement as:

> To establish a mechanism through which Texpet shall be released from any claim that the Ministry and PETROECUADOR may have against Texpet for impacts on the environment or that are directed to obtain rehabilitation and repair of all the ecological damage caused or to compensate for the effects of socio economical nature caused to the populations located in the Ecuadorian Amazonic Region, as a consequence of the operations of the former Consortium PETROECUADOR-TEXACO.

This language was flatly rejected, and the final version of the MOU made clear in no uncertain terms that "[t]he provisions of this Memorandum of Understanding ***shall apply without prejudice to the rights possibly held by third parties*** for the impact caused as a consequence of the operations of the former PETROECUADOR-TEXACO Consortium."[384]

Following the schedule anticipated in the MOU, the government and Texaco supplemented the MOU with a more detailed agreement called "A Contract for Implementing of Environmental Remedial Work and Release from Obligations, Liability and Claims" (the "1995 Agreement"), together with an attached "Scope of Work" that specified the exact pits that Chevron would have to remediate under the agreement. Like the MOU, the 1995 Agreement released only the government's and Petroecuador's claims:

[384] Memorandum of Confirmation Regarding agreement between Texaco and Petroecuador Ecuadorian State, Fojas 7005-7007, record, cuerpo 72.

> On the execution date of this Contract, and in consideration of TexPet's agreement to perform the Environmental Remedial Work in accordance with the Scope of Work set out in Annex A, the Government and PetroEcuador shall hereby release, acquit and forever discharge TexPet . . . Texaco, Inc. and all their respective agents, servants, employees, officers, directors, [and] legal representatives . . . ***of all the Government's and PetroEcuador's claims*** against the Releasees for Environmental Impact arising from the Operations of the Consortium, except for those related to the obligations contracted hereunder for the performance by Texpet of the Scope of Work.

1995 Contract § 5.1. Following Texaco's "remediation" of the specified sites—which, as is demonstrated below, was so cosmetic and woefully insufficient that it is more aptly called a "cover-up" than a "remediation" — the government, Petroecuador and Texaco executed a "Final Acta" (the "1998 Release") released all further claims the government or Petroecuador may have had against Texaco for failing to perform under the 1995 Agreement. Yet again, the signed document made clear that it was only releasing Texaco "from any liability and claims ***by the Government of the Republic of Ecuador, Petroecuador and its affiliates***."[385]

Chevron's pretense that it has been released from plaintiffs' claims is all the more frivolous and abusive in light of the fact that Chevron has already litigated this issue in U.S. federal court—the court it now seems to prefer instead of the court it chose back in the 1990s, namely this Court. As part of the litigation in New York in 2004-2009 that ultimately enjoined Chevron from taking the government and Petroecuador to international arbitration, Chevron raised a "counterclaim," in support of which it argued that the government had released it from *plaintiffs'* claims, and that because the government was not intervening to stop the plaintiffs' case, the government should have to indemnify Chevron for any judgment and pay its legal costs. Specifically considering the argument that the release documents released Chevron of *plaintiffs'* claims, the New York court expressed deep skepticism, noting that:

> [I]t would be ***extremely difficult*** for Defendants to establish that claims nominally brought by third parties in the Lago Agrio litigation were covered by the 1995 and 1998 Agreements between Texaco and Ecuador: ***it is highly unlikely that a settlement entered into while*** *Aguinda* ***was pending would have neglected to mention the third-party claims being contemporaneously made in Aguinda if it had been intended to release those claims*** or to create an

[385] See at page 7714 and 7715 of the record.

obligation to indemnify against them. [386]

Seeing the writing on the walls, Chevron ultimately made the tactical decision to withdraw its counterclaim so as to avoid getting a more explicit adverse ruling on the issue. Now it is attempting to recycle the argument before this Court. The maneuver is clearly abusive and the argument is meritless. Plaintiffs' claims were simply not affected by the agreements between Texaco, the government, and Petroecuador.

2. Even If The Release *Purported* To Extend To Third Party Claims – Which It Does Not – Such A Release Would Be Null and Void

Even if the Ecuadorian government had intended to release third-party claims — which it clearly did not — it could not have done so under well-settled Ecuadorian law. No one (whether a natural person or a legal entity) can release another person's claims without the express, knowing and voluntary consent of the person whose claims are to be released. Section 1461 of the Civil Code establishes that, for a person to assume obligations of another in an action [or declaration at will], the person must be capable and aware of such action or declaration in order to settle in good faith on a legal objective and a legal cause.[387] Any attempt to release a claim without satisfying these requirements would be in violation of law. Section 1483 of the Civil Code sets forth that "an illegal action is an action prohibited by law or contrary to the good practice of public order."[388]

Likewise, releasing plaintiffs' claims through a mere contract to which they never were parties would run afoul of Ecuadorian constitutional law in place at the time of the 1995 Agreement[389], at the time of the 1998 Release,[390] as well as constitutional law today under the Constitution of the Republic of Ecuador of 2008.

Article 24, numeral 17 of the 1998 Constitution, in force at the time of the 1998 Release, guaranteed the right to sue.[391] The same right was acknowledged in the 1993 Constitution,

---

[386] *Republic of Ecuador v. ChevronTexaco Corp.*, 376 F. Supp. 2d 334, 374 (S.D.N.Y. 2005).

[387] Ecuadorian Civil Code, Art. 1461.

[388] Ecuadorian Civil Code, Art. 1461.

[389] Political Constitution of the Republic of Ecuador, published in Official Record No. 183 of May, 1993.

[390] Political Constitution of Ecuador of 1998, published in Official Record No. 1 of May, 1998.

[391] Political Constitution of Ecuador (1998).- Art. 24.- To assure the due process, the following basic guarantees shall be observed, without lessening others, establishing the Constitution, International instruments, laws or jurisprudence: 17. Every person shall have the right to access the legal entities and to obtain from them the effective, impartial and speedy custody of their rights and interests, without in any case, remain without defense.

Article 19, numeral 10.[392] Number 15 of Article 23 of the 1998 Constitution further guaranteed the "right to file complaints and petitions to authorities."[393] Regarding this right, the Constitutional Court of Ecuador, in Resolution No. 0037-2001-TC,[394] has stated:

> [T]he Constitution acknowledges, in its Article 23, number 15, the right of petition, which provides a petition as a complaint and manifestation, and furthermore the petition as a lawsuit, establishing therefore the constitutional custody of the process as the right to go before the legal authority with the purpose of requesting from the State to be acknowledged the right of the petitioner which asserts to have been menaced or threatened by someone, same as it is established in the quoted article 24, of the Political Code

Similarly, it would violate the principle of separation of powers and the independence of the judiciary if plaintiffs' claims were released and their access to the judicial forum and remedies were thereby eviscerated by the government or Petroecuador.[395]

Furthermore, all of these issues have already been litigated in U.S. federal courts after Chevron claimed that the release applied to plaintiffs' claims so as to support its absurd counterclaims against the government. The government's primary response was that such issues of Ecuadorian law were not properly decided by a U.S. judge and that out of respect and comity the U.S. court should defer to this Court's ruling on them. But Chevron insisted that the U.S. court make the determination. In response, the government explained how the release documents on their face did not apply to plaintiffs' claims and further provided substantial expert testimony from Drs. Genaro Eguigaren and Ernesto Albán, in which the two distinguished Ecuadorian professors explained that:

> As a matter of Ecuadorian constitutional law, such fundamental rights as the right to live in a safe environment free of contamination are inalienable. The State is thus

---

[392] Second Code of the Political Constitution of Ecuador (1993).- Art. 19.- Without prejudice of other rights needed for the complete moral and material development resulting from the nature of the person, the State guarantees: 10.- The right to present complaints and petitions to authorities, but in any case in the name of the nation; and to receive the relevant attention or answer in a timely manner, in accordance with the law.

[393] Political Constitution of Ecuador (1998).- Art. 23.- Without prejudice of the rights established in the Constitution and in the international instruments in force, the State shall acknowledge and guarantee the following persons: 15.- The right to present complaints and petition to authorities, but in no case, in the name of the nation;

[394] Adopted by Unanimity by the Plenary of the Constitutional Court in session on April 23, 2002.

[395] Second Codification of the Ecuador Political Constitution.- (1993).- Art. 97.- The entities of judicial functions will be independent in the exercise of their functions. No Authority will be able to interfere in the businesses regarding themselves.

> constitutionally prohibited from entering into any contract whereby it purports to waive any fundamental right of its citizens. Nor can the State arrogate to itself the right to act for its citizens in bringing a civil action in their name against those responsible for violating their fundamental right to a clean environment. To the contrary, the State may represent its own interests, even in a manner intended to benefit all its citizens, but it has no authority to act, in litigation or in contract, in lieu of or in exclusion of its citizens. . . . ***Any contract purporting to infringe this principle is by necessity null and void on its face***. This fundamental principle would clearly apply to nullify any purported release of third party rights given by the State on behalf of some or all of its citizens — even where the language is clear and the intent of the State to do so is unambiguous.[396]

Professors Eguigaren and Albán concluded that:

> [T]he Government of Ecuador ***could not, as a matter of Ecuadorian Constitutional Law, have legitimately arrogated to itself representation of its citizens for purposes of negotiating and executing the 1995 Settlement Agreement and/or the 1998 Release***. Indeed, as rightfully stated in the 1994 MOU, the Republic's Agreement with Texaco Petroleum Company was (by law) "without detriment to the rights of third parties." [397]

3. The Release Was Premised On A Fraud

Even if the parties did intend to release third-party claims, which they did not, and even if the government had the power to release third-party claims, which it did not, Chevron's purported release would still be ineffective as a defense because evidence produced in this trial and corroborated by many other sources reveals that the release was only obtained on the basis of numerous false and misleading representations by Texaco and its subcontractors that render the release null and void as the product of fraud. Indeed, the so-called "remediation" was so corruptly designed and poorly executed that it in fact remediated nothing at all: this trial has shown that nearly all of Chevron's "remediated" pits still show levels of contamination vastly in excess of international standards, Ecuadorian standards, or even the corrupt and inappropriately lax standards Chevron imposed on itself at the time. If the release has any legal effect, it should be to

[396] *See* Memorandum of Law in Support of [the Republic of Ecuador's] Motion for Summary Judgment and Plaintiffs' Petition for a Permanent Stay of Arbitration Proceedings, *Republic of Ecuador v. ChevronTexaco Corp.*, 04 Civ. 8378 (LBS) (S.D.N.Y. filed Jan. 16, 2007) (quoting Foreign Law Declaration of Genaro Eguigaren and Ernesto Albán ¶ 113, Dec. 20, 2006).

[397] *Id.* (quoting Foreign Law Declaration at ¶ 115).

increase the Chevron's liability, for by lying to the government and plaintiffs about the efficacy of the remediation, Chevron misled dozens if not hundreds of affected plaintiffs into feeling secure to build their homes near and sometimes even on top of the supposedly remediated sites, unaware that toxins were still present in their soil and still leaching into the water that they and their animals used everyday.

In fact, the "remediation" was so flagrantly corrupt and inadequate that two former Texaco lawyers, both now employed by Chevron, are facing criminal fraud charges in Ecuador based on their role in negotiating and implementing it. Among other bases of the charge, the lawyers are accused of using an inappropriate laboratory test and standard that made it impossible to genuinely measure contaminants in allegedly treated soils (the standard was so lax that even pure crude would have passed the test with flying colors). The results of this test were reported to the government to prove the remediation met the required clean-up standards.[398]

For the plaintiff, duly authorized.

AG Pablo Fajardo Mendoza
License 21-2004-01

AG Julio Prieto Méndez
License 17-2005-58

AG Juan Pablo Sáenz M.
License 17-2008-162

[398] A related but equally meritless argument Chevron has repeated throughout this proceeding is that it was released from liability not just by the Ecuadorian government and Petroecuador, but also the municipalities of Lago Agrio, Shushufindi, Joya de los Sacha and Francisco de Orellana, plus the Provincial Council of Sucumbíos and the Kichwa Nationality. Even if it were true that all of these municipalities released Chevron – which they did not – for all of the reasons described above, such a release would not affect the rights of the Plaintiffs.