

Chapter 15

A Lesson in Communications

The ability to effectively communicate technical information in a clear and simple manner can be, and often is, the determining factor in winning an environmental forensic argument. This case history illustrates how an inexperienced mediator allowed a strong advocate to “control” the mediation process, thereby creating a mediation environment that skewed communication between defendants and, unknowingly, obstructed input from the regulatory authority. Because the plaintiff’s expert was able to exert such an inordinate degree of influence on the mediator’s understanding of the key technical issues and damage estimates, the mediator moved away from the technical issues and focused on “resolution of the dollars.” It was in the twelfth hour of the mediation that a forensic consultant was retained to solve this “dysfunctional” condition and rescue one of the defendants from inevitable defeat.

AN OPPORTUNITY TO IMPROVE PROPERTY VALUES

A group of run-down industrial–commercial lots, owned by Lake Front Redevelopment Corporation (LFRC) and located along a lakefront, were gradually being surrounded by “higher” use (i.e., restaurants, townhouses, boating facilities, etc.) activities. These LFRC properties had a long and revolving history of industrial occupancy with little hope of changes in the land use pattern (i.e., without sufficient remedial funds to affect a conversion). A site map with parcel locations is found in Figure 15.1.

This all changed, however, when a large diesel oil spill occurred on the property leased by ACME Boat Yard (shown as Area B on Figure 15.1). The

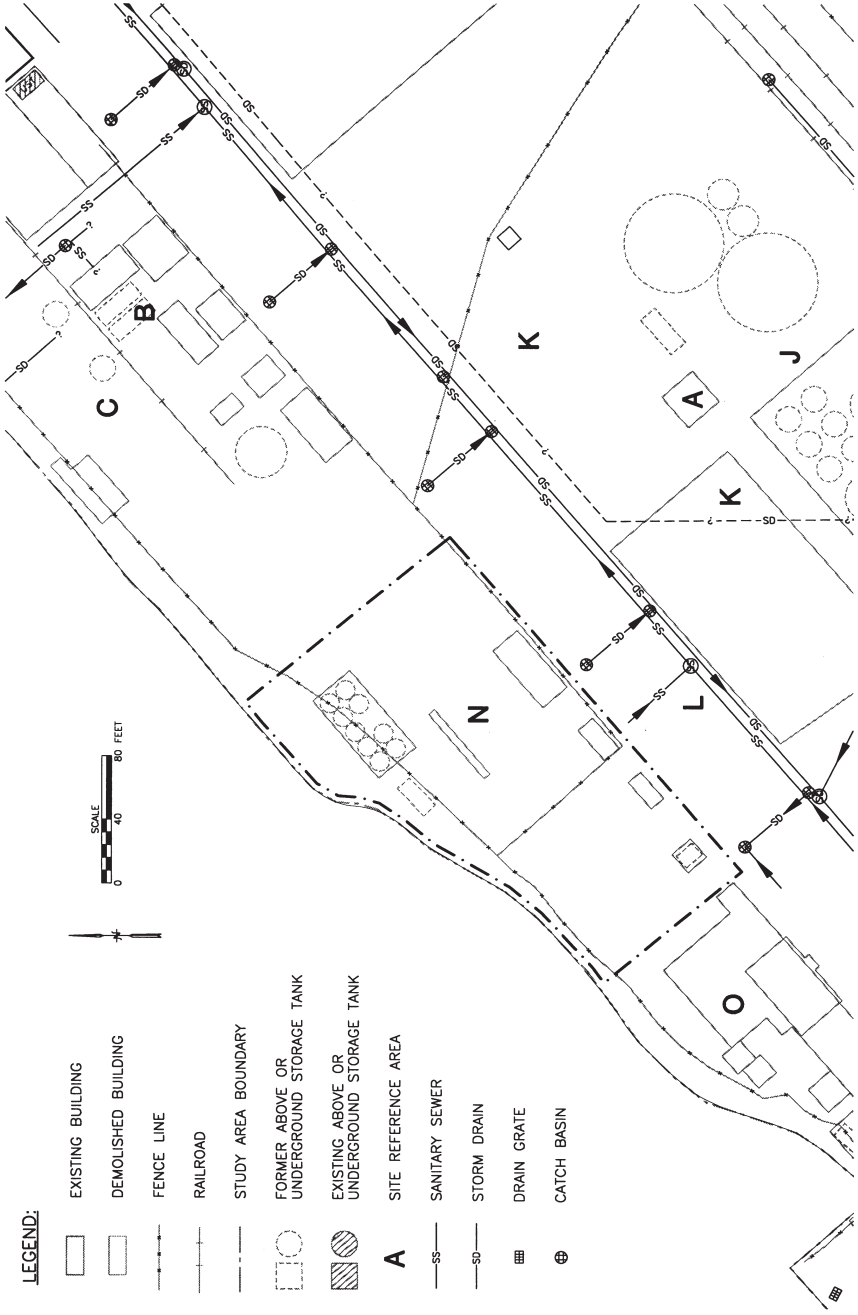
County Health Department required an assessment and subsequent remediation to prevent further discharges to the lake. LFRC retained a local consulting firm, GeoExperts, to investigate the extent of the soil contamination and groundwater contamination (if any) and to clean up the diesel oil discharge to the lake. With the source of the spill controlled, the discharge to the lake ceased. This was then followed by remediation of the site whereby the contaminated soil was excavated and removed. Groundwater monitoring wells were located beyond the ACME property boundaries to characterize any groundwater contamination. The data collected from the monitoring wells showed that contamination from the diesel oil spill had migrated throughout the area, primarily by means of the gravel bedding of the area sewer system. The utility lines are shown in Figure 15.2.

As a result of this discovery, LFRC had GeoExperts expand its study to include a general soil and groundwater investigation of all of LFRC's industrial-commercial properties along the lakefront, presumably to define the extent and sources of the groundwater contamination. These site investigations revealed that all of the LFRC properties had some degree of soil and groundwater contamination (i.e., either from a source on the property or from up-gradient sources). Because of this areawide contamination, coupled with a group of small, unsophisticated tenants and former tenants, LFRC saw an opportunity to redevelop the lakefront tract at the expense of its tenants.

Prior to this incident, the county redevelopment plans focused on the attractiveness of the lakefront properties with the desire to upgrade the land use into a multiuse development (i.e., recreation, residential, and retail/commercial). However, the potential cost of terminating all of the existing leases and remediating any contaminated properties for residential development posed a significant obstacle to the plan. With the potential areawide remediation, LFRC had the opportunity to shift major redevelopment costs to its tenants and the tenants' insurance companies using the following approach:

- Using the results of the site investigations, the LFRC consultant (GeoExperts) developed remedial plans for each property and estimated the remedial cost for each property.¹

¹A site plan with tenant locations is shown in Figure 15.1, and the associated monitoring data are found in Tables 15.1 to 15.6.



LEGEND:

- EXISTING BUILDING
- DEMOLISHED BUILDING
- FENCE LINE
- RAILROAD
- STUDY AREA BOUNDARY
- FORMER ABOVE OR UNDERGROUND STORAGE TANK
- EXISTING ABOVE OR UNDERGROUND STORAGE TANK
- SITE REFERENCE AREA
- SANITARY SEWER
- STORM DRAIN
- DRAIN GRATE
- CATCH BASIN

Figure 15.2 Site utilities.

- Based on the tenant history of each property and the chemical use history of each tenant, GeoExperts allocated a percentage of the estimated cleanup cost to each tenant of each property.
- Because the estimated cleanup cost calculated by GeoExperts vastly exceeded (i.e., a gold-plated estimate) the likely regulatory cleanup requirements, tenants that agreed to pay the LFRC cleanup cost allocation (prior to any regulatory ruling) would be contributing to a cash fund that would far exceed any mandated cleanup cost.²
- LFRC could then use these excess funds to further develop the infrastructure of its property to the planned “higher purpose.”

This assumption, however, was based on the tenants’ agreeing to pay the LFRC proposed allocation (or at least a major portion of it). As expected, the majority of the tenants refused to pay LFRC their allocated percentage. Threatened with a lawsuit by LFRC to “recover” its site investigation costs and remedial costs, the tenants agreed to a mediation of the LFRC allocated costs.

A “DYSFUNCTIONAL” MEDIATION

Reflecting on the fact that the tenant group, including former tenants, was, in the main, small companies, and recognizing that LFRC was the “giant” as well as the owner, the tenants (and their counsel) were somehow convinced by counsel for the LFRC that each allocation claim could best be resolved by conducting a separate mediation between LFRC and each tenant or former tenant of each property. The mediator being presented with this approach also agreed with the LFRC proposed mediation structure. As a result, each tenant was precluded from sharing information, sharing investigative costs, sharing strategy, and sharing settlement results with other tenants (for all of the properties).³

One of the former tenants, Mid-States Oil (referred to as Area N in Figures 15.1 and 15.2), wanted an independent evaluation of GeoExperts’

²One might ask just how these tenants could be so naive as to agree to settling at a higher cost. Obviously, they were not, and ultimately the dispute ended up in mediation. However, during the process of attempting to resolve the cost/allocation issue with the remaining tenants, a settlement was reached with ACME regarding the oil spill on its site, giving LFRC a “cash infusion” and thereby helping to fund the cost of LFRC’s attack on the other tenants.

³This can most appropriately be considered a “divide and conquer” strategy by LFRC.

assigned allocation cost of \$3.5 million (i.e., its allotted share—according to LFRC). Thus, Mid-States Oil retained a local consulting firm to review GeoExperts' site investigation as well as selected remedial plans in order to estimate the most likely remedial cost for the property. The evaluation included a review of the field investigation data collected by GeoExperts. The site-specific soil contaminants are shown in Figure 15.3. When this evaluation was completed, the consultant informed Mid-States Oil that the most likely remedial cost related to "hot spots" on its site (chemicals and concentrations are shown in Figure 15.4) was not \$3.5 million but \$75,000 (a far cry from the \$3.5 million demand).

Possessed with this analysis, Mid-States Oil with its counsel, insurers (several additional deep pockets), and consultant had its first mediation with LFRC, its counsel, and GeoExperts. During the meetings, both LFRC and Mid-States Oil presented their detailed analysis and cost allocation (i.e., based on GeoExperts' site investigation data).

The mediator was singularly unimpressed with the weight of Mid-States Oil's technical arguments. The presentation of the facts by Mid-States Oil was so poor that the mediator was convinced that GeoExperts' proposed remedial actions and cleanup cost allocation were correct. As a result, the mediator attempted to pressure Mid-States Oil to agree to make a settlement offer close to the LFRC demand. After two separate mediation attempts, the result was the same. The Mid-States Oil mediation team (now including five insurance companies) was completely frustrated with the mediator's inability to understand the "obvious." At this critical point of the mediation, Mid-States Oil and its insurance companies decided to fire the consultant and retain another forensic (technical) expert who could, hopefully, present its argument in a more persuasive and convincing manner while making an independent determination of the estimated cleanup cost.

A NEW BEGINNING AND A SHORT FUSE

A new forensic expert was retained to lead the technical battle against LFRC; however, the "final" mediation was scheduled to occur in a scant 15 calendar days (with no possibility of an extension). Thus, the new expert had to immediately evaluate the GeoExperts report, conduct a site visit, and talk to the County Health Department.

Based on the site investigation, GeoExperts alleged that there were at least three underground storage tanks (USTs) that were still located on

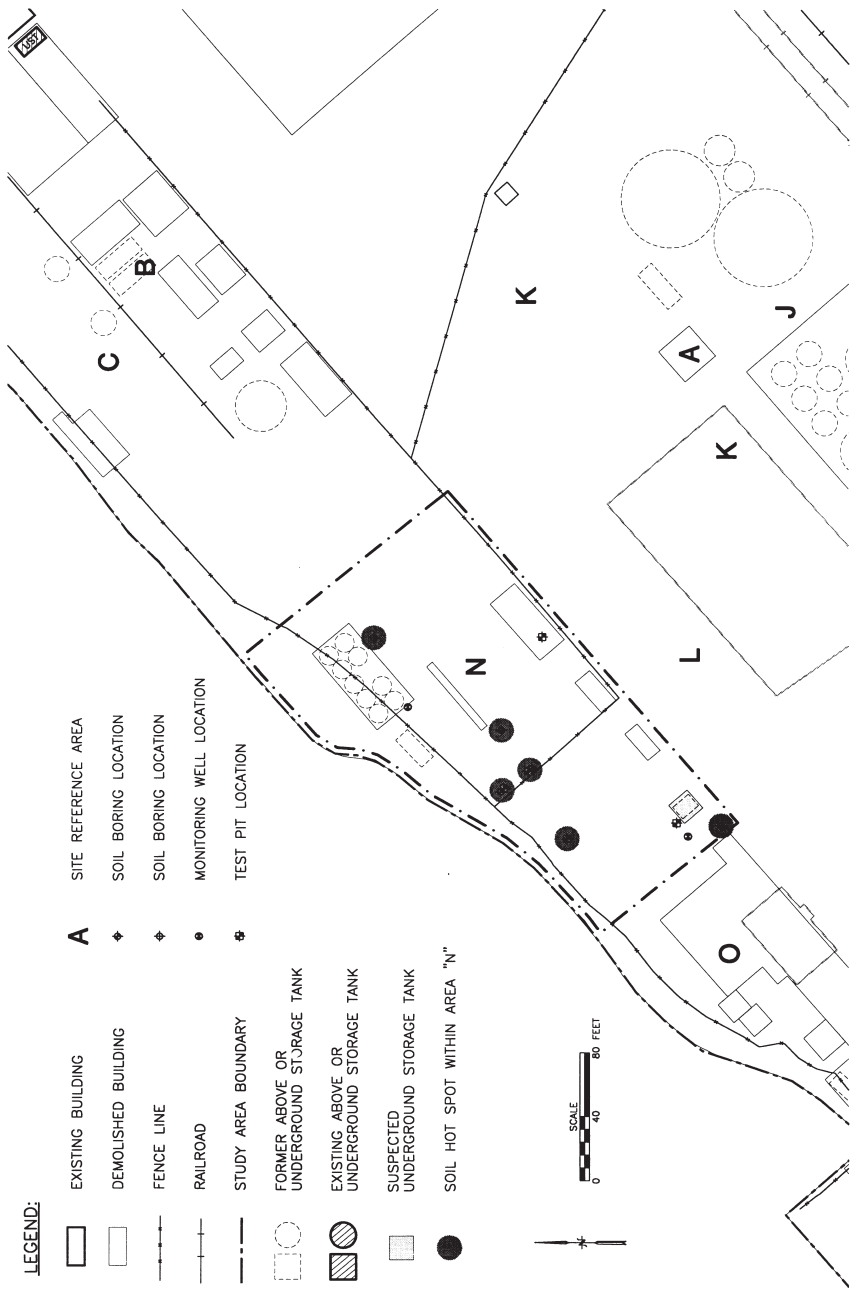


Figure 15.3 Soil hot spots within Area N.

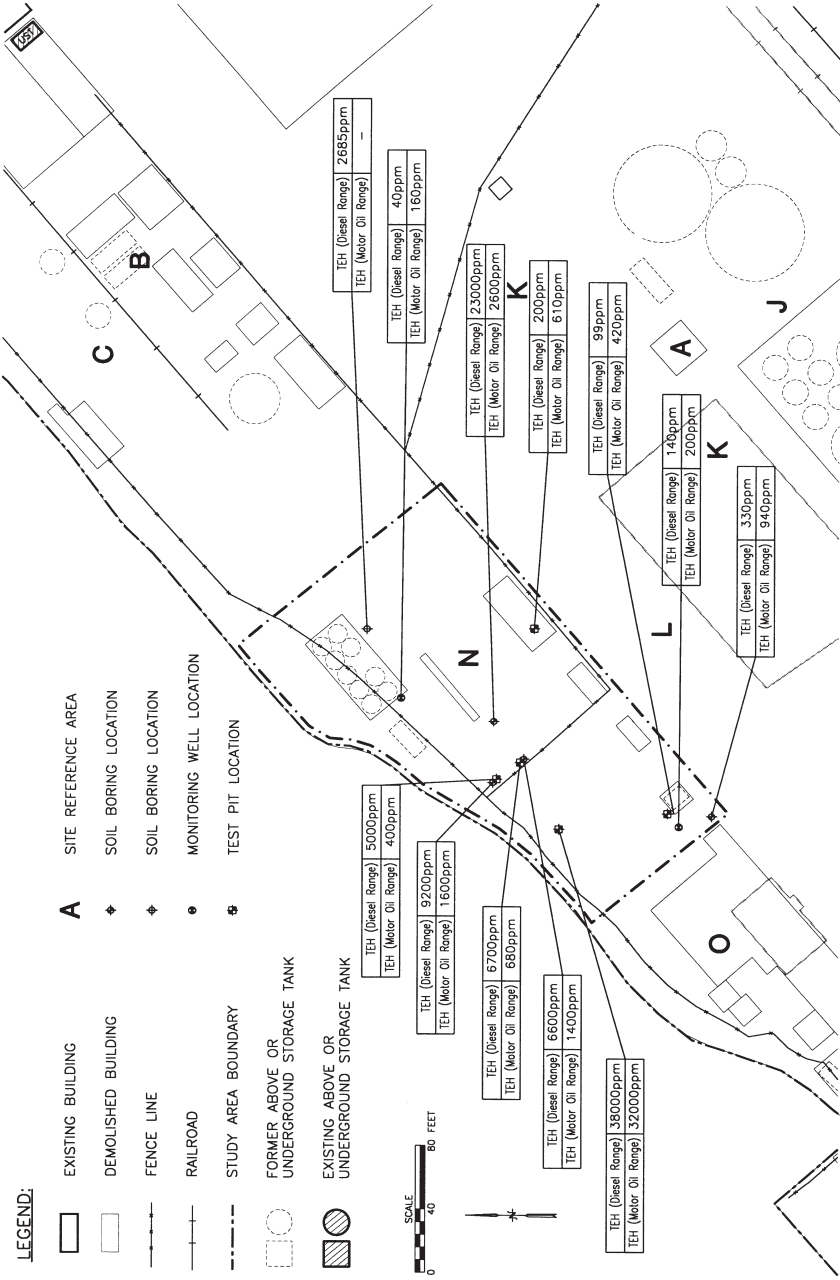


Figure 15.4 Contaminant concentrations within Area N.

the former Mid-States Oil property.⁴ Using a limited number of soil samples from the “alleged” UST location, GeoExperts estimated the horizontal and areal distribution of the contaminated soil (estimating that the entire site had to be excavated). GeoExperts then assumed that this “contaminated soil” would have to be disposed of at a Class I hazardous waste landfill (an expensive assumption). Thus, the estimated cost of the soil cleanup was based on (1) inadequate site data and (2) an unjustified assumption of Class I disposal.

GeoExperts also assumed that some residual oil from the original spill (i.e., from ACME Boat Yard [Area B]) would be in the shallow groundwater aquifer beneath the Mid-States Oil site. Based on this assumption, GeoExperts proposed an extensive groundwater monitoring program with the anticipation that a groundwater cleanup would be required (including the removal of free product).⁵ GeoExperts had also proposed a very expensive bulkhead wall surrounding the lakefront on the entire LFRC property to presumably make sure that no residual diesel oil or other contaminants would enter the lake. Each tenant was assessed a prorated share of the bulkhead cost.

In summary, in addition to the site soil excavation, GeoExperts also allocated the cost of groundwater monitoring, groundwater cleanup, and the prorated share of the installation of a bulkhead⁶ to Mid-States Oil without any evidence that it had contributed any contamination to the groundwater. Because the groundwater contamination originated as a result of the ACME Boat Yard spill, one has to wonder how the projected cleanup costs were allocated to the other tenants (including ACME Boat Yard). If the tenants had communicated during the mediation, this issue might have been quickly resolved.

A review of the site conditions, as reported by GeoExperts, showed that the few identified hot spots⁷ on the Mid-States site might require a limited excavation.⁸ The forensic expert estimated the volume of soil to be ex-

⁴There were no site records or known operations that would support this conclusion.

⁵A separate diesel oil phase floating on the groundwater.

⁶Granted the bulkhead wall would help control any groundwater contamination reaching the lake; however, it would stabilize the lake shore property boundaries and would be a significant improvement to the property value.

⁷Elevated concentrations of petroleum hydrocarbons.

⁸GeoExperts proposed the disposal of contaminated soil to an expensive Class I landfill. Since the GeoExperts investigation of the Mid-States Oil site, a magnetometer study was completed. This study found no buried USTs on the site.

cavated and determined the disposal cost (based on an estimate of the contaminant levels in the soil) for shipment to a Class III landfill (not Class I as indicated by GeoExperts). The forensic expert's projected cleanup cost was remarkably close to the Mid-States Oil first consultant's estimate. Thus, with the basic site review completed, it was time to meet with the County Health Department site program manager to discuss the proposed remediation.

AN ABSENCE OF REGULATORY INPUT

As the meeting started, the Health Department project manager expressed his pleasure at finally talking to one of the tenant's consultants from the LFRC property. It seems that no one, including the mediator,⁹ had bothered talking to the project manager. As a result, the mediator had no first-hand knowledge of the County Health Department's remedial objectives; he only had GeoExperts' account of what the County Health Department would require.

The project manager summarized the site conditions and remedial actions that the County Health Department would most likely require:

- The diesel oil spill at ACME Boat Yard had been remediated to state cleanup criteria (soil, surface water, and groundwater).
- ACME Boat Yard was required to continue monitoring groundwater at the property boundaries.
- There was no corrective action plan for this LFRC site property. No site development plan had been submitted to the County Health Department for environmental review, nor had an ecological risk assessment been completed.
- The additional site investigations (i.e., all of the properties owned by LFRC) conducted by GeoExperts were not required by the county, and GeoExperts (in his opinion) had conducted "the most expensive" site assessment he had ever reviewed. In fact, he commented that everything that the consultant did was "gold plated."
- It was also the County Health Department's opinion that the bulk-

⁹This is not too surprising in that GeoExperts assured the mediator that it was in regular contact with the county, and since none of the tenants seemingly thought to visit the county, thereby raising no objection, the mediator had no reason to independently contact the county.

head wall was not required as long as the monitoring data continued to demonstrate that no oil was leaving the site and entering the lake.¹⁰

- The Mid-States Oil site presently contained sufficient monitoring wells to meet the agency's monitoring requirements and no new wells would be required. The regulator further commented that only limited sampling of the monitoring wells would be necessary.
- Should any USTs be found on the LFRC properties, they could be dealt with through closure, on the site, without having to involve the entire LFRC-owned tract.¹¹

The meeting with the County Health Department's project manager clearly brought to light the intentions of LFRC: Extort as much money as possible from the property tenants. A review of the County Health Department files revealed that GeoExperts had estimated the total site cleanup costs to be a staggering \$42,000,000, with approximately \$3,500,000 allocated to the Mid-States Oil site.¹²

DEVELOPING A MEDIATION STRATEGY

The reason the previous mediations were so "one sided" and unsuccessful was because the mediator did not understand how environmental regulatory agencies operated, nor did he educate himself as to the County Health Department's proposed requirements. It had been the forensic expert's experience that many mediators are ignorant of environmental technical issues and are reluctant to learn¹³ and therefore fall prey to detailed consultant reports supporting what appears, on the surface, to be an environmental issue of major consequence. Once having been taken in by the

¹⁰It was the project manager's opinion that the bulkhead only provided "stability" for the proposed "redevelopment" and served no environmental purpose.

¹¹It was subsequently shown that the alleged USTs did not exist. They either were never there in the first place or had been removed at an earlier date.

¹²The cost included Mid-States Oil's share of the "gold-plated" remedial investigation.

¹³A good mediator will recognize his or her own faults and take appropriate steps to deal with the ignorance issue. One solution is to ask each party in the dispute to recommend one or more technical consultants who, after selection by the mediator and acting in a neutral role, can assist the mediator in walking through the technical issues. Once a mediator has been through the environmental jungle, the situation changes and the expertise of the mediator allows a much better understanding and therefore less reliance on the weight of document.

overwhelming weight of evidence,¹⁴ mediators can be prone to focus on “resolution of the dollars” rather than on the technical merits of the mediation.

Thus, in order to solve this communications problem, it was important to involve the County Health Department in the upcoming mediation. However, most regulator professionals (and their agencies) prefer to remain neutral in disputes between parties trying to allocate remedial costs. Hoping this would not be an issue, the site project manager was asked if he would be willing to participate in a conference call during the mediation to address the site-related issues. He agreed.

THE FINAL MEDIATION

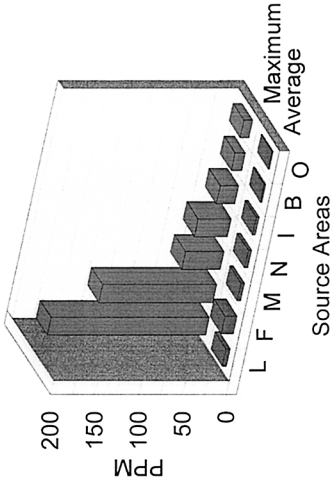
The critical step was to develop a strong, technically sound, simple presentation that, in no more than half an hour, would demonstrate to the mediator (as well as the LFRRC attorney and GeoExperts project manager) the position of the Mid-States Oil team and present a realistic estimate of necessary site-specific cleanup. The series of view graphs (in addition to Figures 15.1 to 15.4) that were prepared for the mediation included Figures 15.5 and 15.6 and Tables 15.1 to 15.6.

The purpose of this presentation was to compare the Mid-States Oil site to other parcels to demonstrate relative contamination. Having demonstrated this through the presentation of both figures and tables, a final summary (Table 15.6), showing a detailed cleanup cost analysis for site N was prepared and presented.

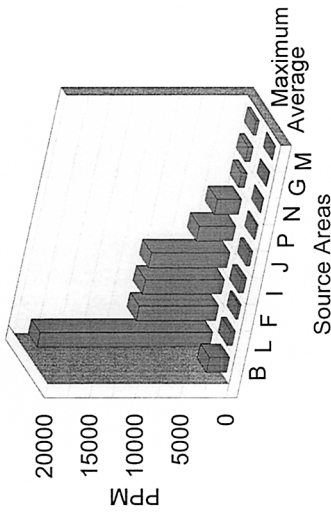
At the end of the presentation, the mediator asked the GeoExperts project manager if she had a rebuttal to the presentation. She had little to say, except to remind the mediator that the regulatory agency had authorized and supported the work effort, as well as the projected cleanup and related costs. It was at this point that the forensic expert’s meeting with the regulator became the pivotal point in resolving the cost disparity.

¹⁴Thick investigative reports with lots of field data and extensive cost information, representing the view of a public agency pointing the finger at money-grubbing industry,” can sell a mediator on a high-monetary-settlement resolution. The weight of evidence is based on document thickness supported by “technobabble.” When one also adds the element of substantial dollars, the argument appears compelling if not adequately countered. Indeed, attorneys occasionally rule out the presentation of alternative solutions that appear to be too inexpensive, feeling that a mediator, judge, or jury would question the cheaper alternative regardless of its technical merit.

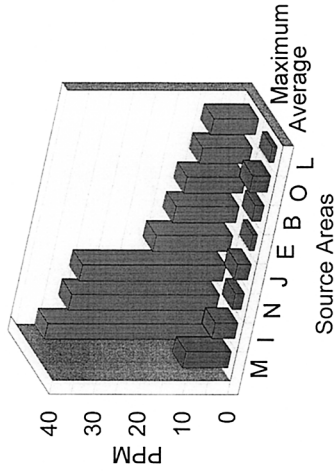
Soil TEH/diesel



Groundwater TEH/diesel



Soil TEH/oil



Groundwater TEH/oil

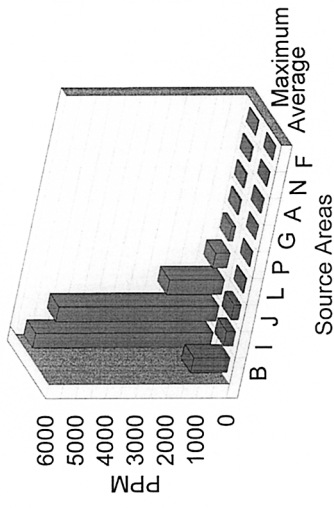


Figure 15.5 Comparative soil contamination.

Figure 15.6 Comparative groundwater contamination.

Table 15.1 Soil Hot Spots Within Site N (Areas with TEH as Diesel >500 ppm)

<i>Site Area</i>	<i>Sample Location</i>	<i>Sample Depth (ft)</i>	<i>Concentration (ppm)</i>
Area of dispensing rack	SCI-43	4.5	9,200
	SCITP-4	5 (sidewall)	5,000
	SCITP-4	5	3,600
	SCITP-3	2.5–3	6,700
	SCITP-3	3.5–4	4,900
	SCI-44	2	1,300
	SCI-44	4.5	6,600
	SCI-45	5	23,000
	Area SW of dispensing rack	SCTIP-19	2.5
Area near ASTs	RMA-25	5.5–6	2,685

Table 15.2 Soil Hot Spots Within Site N (Areas with TEH as Diesel >50 ppm)

<i>Site Area</i>	<i>Sample Location</i>	<i>Sample Depth (ft)</i>	<i>Concentration (ppm)</i>
Area of dispensing rack	SCI-43	4.5	9,200
	SCITP-4	5 (sidewall)	5,000
	SCITP-4	5	3,600
	SCITP-3	2.5–3	6,700
	SCITP-3	3.5–4	4,900
	SCI-44	2	1,300
	SCI-44	4.5	6,600
	SCI-45	5	23,000
	SCI-45	8.5	95
	Area SW of dispensing rack	SCITP-19	2.5
Area near UST#(H-204)	SCITP-14	4	99
	SCIMW-24	6	140
	SCI-12	6.5	330
Area near ASTs	RMA-25	5.5–6	2,685
Area underneath H-224	SCITP-26	3	200

Table 15.3 Overall Soil Contamination Within Site N (All Concentrations in ppm)

<i>Site Area</i>	<i>Sample Location</i>	<i>TEH as Diesel Concentration</i>	<i>TEH as Motor Oil Concentration</i>
Area of dispensing rack	SCI-43	9,200	1,600
	SCITP-4	5,000	400
	SCITP-4	3,600	1,800
	SCITP-3	6,700	680
	SCITP-3	4,900	210
	SCI-44	1,300	3,200
	SCI-44	6,600	1,400
	SCI-45	23,000	2,600
	SCI-45	95	56
Area SW of dispensing rack	SCITP-19	38,000	32,000
	SCITP-19	33	18
Area near UST (H-204)	SCITP-14	99	420
	SCIMW-24	20	140
	SCIMW-24	140	200
	SCI-12	330	940
Area near ASTs	SCIMW-2	40	160
	RMA-25	2,685	549
Area underneath H-224	SCITP-26	200	610
	SCITP-26	2	17

The forensic expert proposed that a call be placed by the mediator to the regulator to confirm GeoExperts' reporting of the County Health Department's remedial recommendations. LFRC's counsel strongly opposed this step, pointing out that it would be a wasted effort in that GeoExperts had already expressed the regulator's opinion and concurrence with the proposed remedial plans. Of course, the LFRC team had no knowledge of the forensic expert's visit with the regulator. The mediator, when presented with the opportunity of speaking with the regulator, thought that the idea was excellent. Once again, LFRC's counsel and GeoExperts opposed the phone call on the grounds that they had already interfaced with the regulator on several occasions; that they had conveyed the regulator's position to the mediator on several occasions; that, therefore, nothing would be gained by an additional call. The mediator rejected the argument and placed the call.

Table 15.4 Probable Groundwater-Contaminated Source Areas
(TEH as Diesel Levels >100,000 ppb)

<i>Reference Area</i>	<i>Sample Location</i>	<i>Sample Date</i>	<i>Concentration (ppb)</i>
F	RMA-5	11/18/96	8,668,000
F	9AV-B13-W1, 2	3/1/93	2,000,000
F	9AV-UST-2	2/12/93	1,000,000
F	MW-6	5/6/97	620,000
F	9AV-B16-W1, 2	3/2/93	310,000
F	SCI-23	5/31/96	248,000
F	MW-4	9/4/96	240,000
M	BH-2	3/29/95	300,000
G	SCITP-23A	4/26/97	8,700,000
G	SCITP-24A	4/26/97	520,000
G	SCI-35	8/30/96	230,000
B	SCITP-6	1/28/97	19,000,000
P	RMA-22	11/22/96	2,689,000
J	SCITP-11	2/4/97	4,000,000
J	RMA-14	11/20/96	440,100
J	SCI-6	5/22/96	240,000
I	SCI-2	5/22/96	5,300,000
I	Manhole	10/16/96	910,000
I	Manhole	5/13/96	720,000
N	SCITP-3	1/27/97	590,000
N	SCI-45	1/23/97	490,000
N	RMA-25	11/22/96	248,500
N	SCI-43	1/23/97	190,000

Based on the forensic expert's presentation, the mediator questioned the County Health Department project manager on each issue. The answers, not surprisingly, completely supported the forensic expert's presentation. LFRC's counsel and GeoExperts' project manager (sitting in on the call) were shocked by these revelations. Thus, the newly baptized mediator censured the LFRC representatives for the "inaccuracy" of their earlier presentations.

THE SETTLEMENT

It was profoundly gratifying to the Mid-States Oil team when the mediator addressed the LFRC team and asked why they had not proposed set-

Table 15.5 Maximum Groundwater TEH as Diesel Levels Found in Probable Source Areas

<i>Reference Area</i>	<i>Sample Location</i>	<i>Concentration (ppb)</i>	<i>Relative Percentage of Areawide Maximum</i>
F	RMA-5	8,668,000	18%
M	BH-2	300,000	1%
G	SCITP-23A	8,700,000	18%
B	SCITP-6	19,000,000	38%
P	RMA-22	2,689,000	5%
J	SCITP-11	4,000,000	8%
I	SCI-2	5,300,000	11%
N	SCITP-3	590,000	1%

Table 15.6 Summary of Remedial and Investigative Costs

<i>Remedial Costs</i> (\$34,695)	
1. Excavation/disposal of on-site soils (six locations >500 ppm TEH)	\$24,737
2. Removal of two 1,000-gallon USTs (assuming their presence)	\$9,958
<i>Investigative Costs</i> (\$56,000)	
1. Soil borings drilled and sampled on site	\$9,000 (six borings)
2. Pits excavated and sampled on site	\$6,000 (six pits)
3. Soil and groundwater analyses	\$21,000 (34 TEH/BETX samples, 25 VOC samples, and 16 metal samples)
4. Report preparation	\$20,000 (2 reports)
Total cost: \$90,695	

tling the action with a number close to the estimate prepared by the Mid-States forensic expert. In the final analysis, the settlement discussion had moved from a number somewhat less than \$3.5 million to somewhat more than \$75,000. This represented “one hell of a move” and an apparent victory for Mid-States Oil and its insurance carriers.

The parties settled within several weeks, at a cost to the Mid-States Oil team significantly below the LFRC demand, but significantly higher than the forensic expert’s projection. The added settlement amount essentially consisted of the anticipated litigation costs had the matter gone to trial.

LESSONS LEARNED

1. It should be clear from this case history that all projected remedial costs are not necessarily appropriate just because an engineering consultant developed them.
2. Property owners with access to remedial funds (i.e., settlements from other responsible parties or insurance companies in excess of the estimated remedial costs) have been known to make property improvements with these funds (e.g., upgrade roads, improve utilities, raze buildings, and build sea walls) in the name of remediation.
3. Regulators, by the very nature of their responsibility (to address contamination issues), rarely suggest “less” and usually concur with “more.” In other words, a geotechnical consultant may propose a “gold-plated” investigation or remediation. The agency’s concern is that the plan address the contamination; it does not involve itself in the monetary aspects of the investigation or remediation. Because a regulator has not voiced an objection to a “gold-plated solution” does not mean an agency had “ordered” the proposed work. This is a very common and costly mistake.
4. Regardless of time constraints, homework prior to any mediation is the key to success. In this case, however, the key to success was establishing the appropriate lines of communication necessary for an effective mediation.